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ABSTRACT

The focus of this report is the way standards are influencing instruction in Philadelphia classrooms and how the various parts of the system are working together to support standards-driven instruction at the classroom level. The 1996-97 school year was still an early one in the implementation of standards-based instruction in Philadelphia. The school district's Teaching and Learning Network staffs had just been hired, or were not even hired until January 1997. Workshops were offered for teachers, but they were not enough to support a full and even implementation of standards-based instruction. Written materials in support of standards-based instruction became available in January 1997, and the school district's Office of Best Practice was without leadership in the school year. At the district's central office there was a good deal of debate about what kind of support was appropriate and necessary. This debate reflected unresolved tensions within the initiative's theory of action and within the standards movement itself. At the same time, the district moved forward with its new accountability system, sending a clear message that schools would be judged on the basis of whether student scores improved. Most teachers were highly motivated to ensure that they would. Consequently, standards as accountability drove much of the instructional activity. While the central office and the school district partners debated their roles under standards-based instruction, some other initiatives and programs influenced instruction in Philadelphia classrooms. Recommendations are given to help define and implement the standards-based instruction process. None, however, provided detailed guidance for implementing standards-based instruction. (Contains nine tables and four charts.) (SLD)

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CHILDREN ACHIEVING:
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Making Sense of Standards: Implementation Issues and the Impact on Teaching Practice

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Making Sense of Standards: Implementation Issues and the Impact on Teaching Practice

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May 1998

PREFACE

In December of 1995, the *Children Achieving* Challenge charged the Consortium for Policy Research in Education (CPRE) and its partners, Research for Action, OMG Center for Collaborative Learning and the Philadelphia Writing Project with the evaluation of *Children Achieving*, Philadelphia's school reform initiative. Research began in January 1996 and will continue through December 2000.

During the 1996-97 school year, the evaluation team conducted qualitative research in 21 schools, 14 clusters, interviewed District officials, and administered a District-wide survey of teachers. Drawing on this data, a series of five reports have been drafted. They include:

- Restructuring Student Supports: Redefining the Role of the School District
- Guidance for School Improvement in a Decentralizing System: How Much, What Kind and From Where?
- Making Sense of Standards: Implementation Issues and the Impact on Teaching Practice
- The Accountability System: Defining Responsibility for Student Achievement
- Technical Report on the Results of a Survey of Philadelphia Teachers

These reports are available through CPRE (215) 573-0700 extension 0 or through the *Children Achieving* Challenge (215) 575-2200.

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INTRODUCTION

Weaving the web between standards, assessment, accountability and support of good teaching and learning is the central feature of systemic change.[1]

Children Achieving builds on a rich history of teacher professional development in the School District of Philadelphia which nevertheless resulted in schools and a teaching force of uneven quality. Incoherence within the system itself often prevented successful efforts to improve instruction. For example, the system of expectations and rewards for administrators, personnel rules and decisions, and uneven access to professional development impeded improvement efforts. *Children Achieving* promises to eliminate incoherence through "systemic" reform, thereby creating the conditions for realizing excellent teaching and student achievement District-wide. This report examines the progress *Children Achieving* has made toward creating such conditions. Standards are central to *Children Achieving*'s theory of action for creating excellence in teaching. This report focuses on what standards-based instruction means, and how Philadelphia teachers are coming to understand it. It also examines the system's attempts to support that vision of instruction. The report describes the work of teachers, administrators and School District partners as they implement standards-driven instruction in Philadelphia's classrooms. It also points to factors that have affected implementation and makes recommendations for strengthening these efforts.

Specifically, the report addresses the following questions:

- How are standards influencing instruction in Philadelphia classrooms?
- How are the various parts of the system working together to support standards-driven instruction at the classroom level?

The report focuses on classroom practice during the 1996-97 school year, and examines the role of the central office and clusters in conveying what is meant by standards-driven instruction and the role of individual schools in encouraging and supporting standards implementation. In addressing these questions we draw on qualitative fieldwork conducted in the central office, in 14 cluster offices, in 21 schools across 7 clusters, and on CPRE's survey of Philadelphia teachers conducted in the spring of 1997.

In addressing the two main questions above, this report examines the theory of instructional change underlying *Children Achieving*, discusses the role of the standards in the reform effort, and develops a sense of what standards-driven instruction is intended to look like in use. We then turn to a discussion of the role of the District's central office in implementing standards during the 1996-97 school year. The report then focuses on the implementation of standards-driven instruction in Philadelphia schools during spring of 1997—how teachers were using the standards, to what extent their instruction reflected the underlying instructional philosophy of standards-driven instruction, and the degree to which instruction challenged students intellectually. We discuss influences on the implementation of the standards, including the influences individual schools had. Finally we offer conclusions and recommendations.

This is a progress report on the work of the School District of Philadelphia and the *Children Achieving* Challenge to facilitate the implementation of a standards-based approach to instruction. In making an assessment of progress, it is important to consider both the amount of time that teachers have had so far to understand and alter their practice in light of new expectations, and the ambitiousness of the reform effort. The 1996-97 school year was the second year of *Children Achieving* for Philadelphia, but only the first year for most of the schools in the District. As we describe in this report, it was only at the beginning of the year that the first set of approved standards was distributed to teachers. In addition, research has shown that the reform of instruction, which is at the heart of *Children Achieving*, is the

[1] *Children Achieving Action Design*, February 6, 1995. II-1.

most important, yet the most challenging of goals. Core change in teaching practice occurs over an extended period of time and with significant support and opportunities to learn from experience.[2] In many ways, *Children Achieving* represents an unprecedented effort, a more comprehensive and ambitious urban school reform effort than any other we know of. Reform that aims to change what happens in classrooms is difficult and requires the convergence of many elements that eventually empower teachers themselves as "the agents of change."[3] The problem of evaluating such an ambitious and unprecedented effort is that there is no clear yardstick by which to judge progress.

What can we expect to see in the implementation of standards at the end of the second year of *Children Achieving?* We think it is reasonable to expect that:

- Almost all teachers are aware of the Philadelphia standards and their role in reform.
- Teachers are beginning to struggle to use the standards and to understand the implications of standards for classroom practice.
- An uneven pattern of implementation across schools and classrooms prevails. In this first year of standards implementation, we would expect that standards are mostly just beginning to affect practice. The variety in implementation would include teachers who are aware of the standards but have not yet altered their practice as well as those who have added new teaching techniques or have begun to adapt their curriculum and methods in light of standards.

In the following section, we discuss *Children Achieving*'s theory of instructional change, and the way in which the reform has hoped to stimulate change in teachers and in schools to create standards-based classrooms in small, self-governing settings.

[2] Cohen, David K. "A Revolution in One Classroom: The Case of Ms. Oublier," *Education Evaluation and Policy Analysis*, 1990, pp. 311-329; Cohen, David K. and Heather Hill, "Instructional Policy and Classroom Performance: The Math Reform in California," *Ms.* Michigan: University of Michigan, 1997.

[3] Cohen, "A Revolution in One Classroom."

The THEORY *of* INSTRUCTIONAL CHANGE

The ultimate goal of *Children Achieving*—high student performance—is dependent on the quality and nature of instruction and the conditions in schools that support it. *Children Achieving* presents a theory of instructional improvement in which improved teaching and learning are consequences of the implementation of the reform's leading elements:

- standards;
- a system for accountability including rewards and sanctions;
- decentralization of decision making; and
- effective supports for teachers and students.

In this theory, standards for what students should learn and be able to do are supposed to serve as signposts for teachers to use in designing and delivering instruction. Standards also indicate what the school district will hold professionals accountable for in terms of student achievement. Teachers are expected to hold high expectations for student learning based on an agreed-upon set of standards. A system of accountability based on an index of school performance which includes test results provides feedback to teachers and schools and measures their effectiveness. *Children Achieving* assumes teachers will respond to incentives and sanctions tied to the index to change their practice to carry out high quality, standards-driven instruction.

Implementation of a standards-based approach to instruction requires both autonomy and support. The *Children Achieving* theory of action postulates that decisions should be made at the level closest to those affected by them. Schools, their small learning communities, and teachers are expected to make most decisions about instructional practice and are granted the autonomy to make such decisions in coordination with other units. The practice of teachers is expected to improve in schools which make decisions that support standards-driven instruction, provide for reflection on practice, and support continuous improvement.[4]

To support this process, *Children Achieving* offers schools and teachers professional development, opportunities for learning and reflection, and new resources including technology. For example, *Children Achieving* pledges that in time each teacher should have 20 days of professional development annually, many more than the 20 hours of professional development specified in the current union contract (which is already a significant increase over past professional development allotments). Teachers also are expected to have time during the school day for planning and collaboration.

At an intermediate level of the system, the cluster office is intended to be a key source of support, offering a Teaching and Learning Network (TLN) to provide various forms of assistance for instruction to a group of schools in a feeder pattern. The cluster also is intended to help support students through a coordinated system of social and health services that assures their ability to attend and take full advantage of school.

The central office, for its part, is responsible for developing and disseminating standards and providing training opportunities, information, leadership, and technical assistance.

[4] *Children Achieving Action Design*, ii.

The ROLE *of* STANDARDS *in* CHILDREN ACHIEVING

The approach to changing teaching practice in *Children Achieving* can be summed up as follows:

Provided high academic standards for all students and strong incentives to focus efforts and resources to reach those standards, administrative and leadership support for teachers to improve their instruction, and restructured schools that support good teaching and encourage improvement of practice, teachers and administrators of the Philadelphia schools will develop, adapt, or adopt instructional technologies and patterns of behavior that will help all children reach the District's high standards.

Setting standards to stimulate improvements in student performance has become a national movement in the last several years. In its momentum, standards have taken on significance as both a system of accountability and as an approach to instruction. As a system of accountability, standards are seen as a way to make American schools competitive worldwide. Proponents of standards believe that almost all children can attain much higher levels of achievement than they do presently. This movement appeals to business, civic, and political leaders who want to insure a prepared workforce. Standards also resonate with the current accountability movement in American society, which seeks to track the benefits derived from the tax dollars spent on public services and functions. Devising a set of standards and an assessment system which measures whether they are being met provides an accountability framework that makes schools responsible for "outcomes" (what students can do) rather than "inputs" (such as school services). Also in the accountability movement are those constituents who support standards because they promise a more equitable system. Central to this approach is the belief that high standards should be applied to every student regardless of background or geography.

Standards as a system of accountability offer no pedagogical prescriptions; proponents are interested in the results rather than the method of obtaining them. In focusing on outcomes, the language of standards as accountability counsels teachers to "do whatever it takes for as long as it takes to teach all students these standards."[5]

As an approach to instruction, however, the standards movement emphasizes that what schools and teachers do is critical to whether children achieve the high standards. Thus, educators developed standards for particular disciplines by analyzing what people trained in those disciplines know and do as well as how they advance knowledge. To apply these kinds of standards in the classroom requires teaching that encourages problem-oriented, active learning. Although proponents of standards-based instruction leave open the choice of curriculum and teaching techniques, they do forward the view that learning should be "constructivist," and this has implications for instruction. Such an approach entails new ways of developing curriculum, a new mix of methods, and new assessment strategies than many teachers traditionally have used.

In our examination of the implementation of standards under *Children Achieving*, this report focuses primarily on standards as an approach to instruction. In understanding the issues involved in implementing standards-driven instruction, however, we examine how standards as an accountability system interacts with standards as an approach to instruction. Inherent in the interaction of these two aspects of the standards movement is the tension between leaving open the choice of pedagogy and advocating, even if only by implication, a philosophy of teaching and learning.

[5] Mitchell, Ruth, Marilyn Willis, and the Chicago Teachers Union Quest Center. *Learning in Overdrive: Designing Curriculum, Instruction, and Assessment from Standards*. Golden, CO: North American Press, 1995.

This tension is apparent in the Philadelphia School District's written documents. As the statement below, taken from the *Children Achieving* Action Plan, shows, the Philadelphia standards refer primarily to accountability and generally do not prescribe teaching strategies:

This standard—that all children can and will achieve at high levels—will create a school system committed to continuous improvement in which we return again and again to seek new answers to the questions how do we teach, who teaches, where does learning take place, and when does learning occur. It will force us to ask the uncomfortable questions and implement the non-traditional answers...We will know as a system that we have gotten it right when every child is successful.[6]

Yet at other times the notion of standards as an approach to instruction is apparent, as in the document the District issued in Fall 1996:

Our current understanding of the content and processes of learning is that students bring multiple intelligences and previous knowledge into the classroom. Students learn by ***constructing*** *knowledge through a variety of meaningful activities. Adopting high standards for all students will require that all members of our educational community rethink the structures and schedules in schools, as well as the instructional materials, instructional strategies, and assessments in classrooms.*[7] *(Emphasis added.)*

This document presents a guiding theory of how learning takes place that is consonant with "constructivist" teaching, and a view that "rethinking" what goes on in schools and classrooms is necessary to create such learning environments.

Moving to standards-driven instruction is indeed the central change proposed by *Children Achieving*. But what should it look like in practice? How does constructivist teaching take shape in the classroom? As described by Ruth Mitchell and Marilyn Willis of the Chicago Teachers Union Quest Center in their book, *Learning in Overdrive*, standards-driven instruction entails three basic elements:

- setting high standards;
- teaching for students to achieve the standards; and
- measuring students' progress towards the standards.[8]

Setting high standards is viewed as a community and collective activity that aims for the highest and most widely accepted expectations for what students should know and be able to do. Mitchell and Willis advocate the approach taken by *Children Achieving* of not prescribing specific teaching techniques for how teachers should teach in a standards-driven classroom, arguing that it is up to the teacher to "do whatever it takes for as long as it takes to teach all students these standards." Nonetheless, they do describe in detail what a standards-driven curriculum unit looks like and explain how this approach to instruction differs from non-standards-driven instruction.

A constellation of standards that naturally fit together is the foundation for a standards-driven unit. They provide the focus for learning. A unit has a "culminating task" and a set of driving questions that "energizes" or informs instruction and leads to the culminating task, which ideally addresses concrete problems in a way that reflects actions taken in the real world. A unit in a standards-driven classroom defines accept-

[6] *Children Achieving Action Design*, I-1.

[7] School District of Philadelphia, Office of Standards, Equity and Student Services, *Recommended Content Standards, Benchmarks, and Performance Examples*. August 26, 1996, vii.

[8] Mitchell and Willis and the Chicago Teachers Union Quest Center, *Learning in Overdrive*.

able performance on the task, and the instruction and curriculum are designed to help students accomplish the culminating task, thereby demonstrating their mastery of the associated knowledge and skills. In their description of a standards-driven unit, the standards are embedded into the tasks students work on. In planning a standards-driven unit, teachers use "backward mapping,"[9] starting with what they want students to achieve and identifying a logical set of steps or "learning sections" for getting there.

Chart 1 below, taken from Mitchell and Willis' book, illustrates the differences between traditional and standards-driven approaches (or in their parlance, "Learning in Overdrive").

CHART 1

Comparison of Traditional and Standards-based Instruction*

	Traditional	**Standards-based**
Time	• 40-50 minute periods • Text-book bound	• Flexible, with units varying in duration and length of lessons • Timed for completing tasks
Instruction	• Text-book bound/teacher-centered • Standardized • Breadth over depth	• Standards-driven, learner-centered • Individualized • Depth over breadth
Curriculum	• Textbook-driven • Fragmented • Emphasis on basics and coverage	• Best thinking about what students should know and do • Interconnected • Higher level thinking within and across disciplines
Learning	*Passive* • Rote • Predigested information • One right answer	*Active* • Real world problems • Learner constructs meaning • Diversity of Possibilities
Teaching	• Isolated • Solitary • Bureaucratic	• Collaborative • Teams • Professional

* Adapted from chart in *Learning in Overdrive*, page 6.

[9] Ibid., 6.

This description also offers insight into what standards-driven instruction is not. It is not a checklist or pacing schedule of "topics" to be covered. "The standards do not dictate curriculum content...but leave plenty of room for creative choice of material."[10] On the other hand, a standard should be specific enough for teachers to be able to judge whether classroom activities are in line with it. Teachers do not necessarily use one standard per lesson but may group several related standards, then devise a culminating task that will embody those standards from across disciplines. This is what makes the standards-driven classroom interdisciplinary and encourages teacher collaboration.

Below, we describe how standards were developed and disseminated in Philadelphia and identify other sources of information and guidance upon which teachers have had to draw in their efforts to interpret what standards-driven instruction means and how it might look in action in their classrooms. We then turn to a description of teachers' practice and their views of standards.

[10] *Recommended Content Standards, Benchmarks, and Performance Examples*, 20.

Implementing Standards in the Philadelphia School District

While schools and teachers ultimately are responsible for implementing the standards, the District's central administration can support or influence that implementation. As we outlined in our report on governance, the School District of Philadelphia's central office now sees its role primarily as a service provider that leaves decisions about instruction to the levels of the system closest to the students—the school, small learning community, and classroom. In this view, the role of the central office is to:

- set content, opportunity-to-learn, and student performance standards;
- establish a performance accountability system based on student performance, providing rewards and sanctions as well as assistance to schools that need it;
- monitor schools to insure equity for all students;
- provide schools with exemplars of "best practice"; and
- function as a customer-focused, service organization that devises systemic solutions to operational problems.[11]

Given these functions, the central office supports standards implementation in the following ways:

- disseminates the standards (content, performance, and opportunity-to-learn) and communicates clearly their purposes;
- communicates clearly the results of the performance accountability measures so that schools and teachers can see the relationship to their practice and use the information to assess their own efforts towards helping students meet the standards;
- provides coherent guidance and support for implementation in such forms as written materials, District-sponsored professional development, establishment of an Office of Best Practices, direct assistance to schools, and coordination of initiatives;
- provides information about available curriculum and instructional materials and their alignment with the standards; and
- provides models of standards-based curriculum and a means of sharing new units across schools.

Beginning in late 1995, the District, with support from the Philadelphia Education Fund, embarked upon the task of developing a set of content standards for Philadelphia schools by convening groups of teachers, parents, and others, first in the areas of English/language arts, mathematics and science, and the arts. The timeline in Chart 2 outlines the development of standards in Philadelphia.

[11] Christman, *Decentralization: Children Achieving's New Governance Structures for Guiding School Improvement*. January 1998.

CHART 2

Timeline for Development of Philadelphia Content Standards

Date	Activity
December 1995	Standards Writing Teams convened and writing of standards begins
April 1996	Draft of Content Standards in English/Language Arts, Mathematics, Science and the Arts distributed for review
Summer 1996	Draft of Content Standards in English/Language Arts, Mathematics, Science and the Arts reviewed and commented on by Standards Review Teams and other interested parties
July 1996	Four-day professional development session held for teams of teachers from each school on standards-based instruction
September 1996	Second draft of standards, titled "Recommended Content Standards, Benchmarks and Performance Examples," in English/Language Arts, Mathematics, Science and the Arts distributed to all teachers; Standards Curriculum Resource guides for multiple grade levels distributed to teachers
Oct.–Nov. 1996	Public hearings on Recommended Standards held in all 22 clusters
December 1996	Recommended Content Standards, Benchmarks and Performance Examples in English/Language Arts, Mathematics, Science and the Arts Standards adopted by Philadelphia Board of Education with minor revisions
January 1997	Draft Content Standards, Benchmarks and Performance Examples in Health and Physical Education, Social Studies, and World Languages submitted for review to Standards Review Teams
February 1997	Resource Guide for Standards-based Assessment and Instruction published and distributed to schools
May 1997	Second draft of Content Standards, Benchmarks and Performance Examples in Health and Physical Education, Social Studies, and World Languages distributed to all teachers for review
July 1997	Week-long content-based professional development session held for teams of teachers from each school (totaling 1100 teachers) on Content Standards in English/Language Arts, Mathematics and Science
Summer 1997	Final draft of Content Standards, Benchmarks and Performance Examples in Health and Physical Education, Social Studies, and World Languages adopted by Board of Education
January 1998	Curriculum Frameworks in English/Language Arts, Mathematics, Science and Social Studies Distributed District-wide

Drawing heavily on content standards previously developed by national professional organizations such as the National Council of Teachers of Mathematics (NCTM) and the National Council of Teachers of English (NCTE), Philadelphia's Standards Writing Teams drafted content standards in the core subject areas, integrating several "cross-cutting competencies"—communication, citizenship, school-to-career readiness, multicultural competence and problem-solving, and technology—in all disciplines. The initial draft standards in English/language arts, mathematics, science and the arts were distributed to all teachers in May 1996 and were reviewed by Standards Review Teams, composed primarily of teachers and other educators from the School District of Philadelphia. A second draft, incorporating revisions suggested by the Review Teams, was distributed to all teachers in September 1996. After holding public meetings on the standards in all 22 clusters, the Content Standards, Benchmarks and Performance Examples were adopted by the Philadelphia Board of Education in December 1996. A similar process was followed subsequently to develop Content Standards, Benchmarks and Performance Examples in Health and Physical Education, Social Studies, and World Languages. Standards in these disciplines were adopted by the Board of Education in Summer 1997.

In addition to content standards that describe what students should know and be able to do, the District promised to develop performance and opportunity-to-learn standards. Performance standards provide criteria for judging the extent to which student work represents adequate mastery of the content standards. Performance standards are a way to judge student progress. Opportunity-to-learn standards describe the "conditions necessary for students to achieve the content standards, such as physical facilities, access to materials, resources, and skilled teachers."[12] In Philadelphia, the strategy was to develop the performance standards after teachers began to implement the content standards so that the former could reflect teachers' experience with implementation.

To assess whether the standards were being met, the District chose to use the Stanford-9 Achievement Test (SAT-9), a commercially available test considered to be closely aligned with the Philadelphia standards because of its fit with the national standards upon which they are in large part based. School District officials recognized that the SAT-9 was the best fit available rather than a perfect fit. In fact, the authors of the Content Standards booklet warned teachers not to rely completely on the testing process to assess their students. They recognized that the SAT-9 would not measure everything students were expected to learn and advised teachers to develop their own means of assessing "student work produced over time in the classroom for progress."[13]

The District also developed the formula for a Performance Responsibility Index (PRI) to measure schools' progress on the standards based largely on the model developed for Kentucky's standards-based reform effort. The Performance Responsibility Index would be based on spring SAT-9 scores and would be the first measure of whether or not schools were improving under *Children Achieving*.

On the following pages we summarize and discuss our findings on the major factors affecting implementation of standards during the 1996-97 school year.

[12] Mitchell and Willis, *Learning in Overdrive*, 19.

[13] *Recommended Content Standards, Benchmarks, and Performance Examples*, ix.

Central Office Support/Guidance for Implementing Standards-based Instruction

Finding: During the 1996-97 school year, while central office staff spent time coordinating and training staff to support standards-based instruction, it issued sparse guidance for schools and teachers to implement standards-based instruction in classrooms.

The authors of Philadelphia's Content Standards Guides were careful to note that standards were not meant to "dictate how material should be taught and what curriculum should be used."[14] However, leaders of the Philadelphia standards movement also recognized the need to provide guidance to teachers and schools as they tried to implement the standards. In July 1996 the District conducted a three-day professional development session on standards-based instruction, which was attended by teams of teachers from each school. Standards Curriculum Resource Guides in English/Language Arts, Mathematics and Science were issued in September 1996 for each of three grade levels, K-4, 5-8 and 9-12. The Curriculum Resource Guides were intended to replace guidelines developed prior to *Children Achieving*, including the Standardized Curriculum, Instructional Planning Guides, and Marking Guidelines. Indeed, at the beginning of the school year, several administrators pointed out that Superintendent David Hornbeck believed the District had already fulfilled its responsibility for guidance by issuing the recommended standards curriculum resource booklets.

Considerable attention was given by central office staff and District partners, including the *Children Achieving* Challenge and the Philadelphia Education Fund (PEF), to curriculum and instruction during the 1996-97 school year and to the coordination of efforts both within the central office and across the partners. As detailed in our report on decentralization, a set of work groups consisting of central office staff and staff members of partner organizations were focused on key *Children Achieving* components. Monthly meetings among work team leaders throughout the school year provided an opportunity to coordinate the plans of each work group. Indeed, we found that the work groups and work team leaders meetings were sites of extensive discussion about standards and the guidance role of the central office. The work teams themselves were perceived by participants as "professional development for people who participate on them, they are the substantive conversations that need to go on." As pointed out in the report on decentralization, this effort did pay off in increased coordination among the work groups and, to some extent, within the central office, as well as coordination of the central office and its partners. Work team leader meetings focused on a number of issues, chief among them the development and implementation of standards.

By November 1996, discussion in the work team leaders meetings indicated that District administrators were rethinking their responsibility for guidance. They expressed concern about the Superintendent's position that "the standards were the curriculum," and asked what kind of curriculum support the central office should provide. One interpretation of what should be developed was "not a standardized curriculum, but not spotty resources either."

By January 1997, a consensus emerged that the central office should develop a more detailed framework for implementing standards in the classroom, but discussions about the appropriateness of issuing frameworks in a standards-based environment continued throughout the year. One primary concern was whether to delineate what students should know at the end of each grade. Some central office staff felt this contradicted the developmental notion underlying standards: children develop academically at different rates, and although accountable for reaching the same standards, might take varying amounts of time to reach them. Another concern about curriculum frameworks was whether they needed to focus on units of study. As

[14] *Ibid.*, v.

noted earlier, advocates of standards-driven instruction see standards-based units as being based on interdisciplinary themes that encompass a number of standards and end with culminating tasks. The curriculum frameworks eventually issued in Philadelphia do not address the development of units of study. Over the course of the school year, a number of options for curriculum frameworks were discussed, including:

- central office-initiated development of curriculum frameworks, which would detail grade-by-grade objectives and sequencing of the content standards;
- central office-initiated development of a document that would act as a bridge between the old, standardized curriculum and the new system of the content standards;
- time and resource support for school-initiated development of curricula, based on the content standards;
- central office-initiated development of performance standards aligned with the content standards;
- central office-initiated development of units of study;
- time and resource support for school-initiated development of units of study; and
- central office provision of access to units of study developed by schools/educators outside the School District of Philadelphia.

Some of these efforts were completed or at least begun during the 1996-97 school year. The central office and its arm in the clusters offered support that had the potential to support standards-based curriculum development through the Teaching and Learning Network (TLN). For example, the TLN could be available to consult with small learning community coordinators on standards-based curriculum. Indirectly, the TLN offered support through a variety of professional development opportunities within clusters on standards that varied in approach and scale. The central office and the Philadelphia Education Fund collaborated to plan summer professional development for 1997 to focus on standards in the content areas.

One product completed and distributed during the 1996-97 school year was intended to show the alignment of standards with the SAT-9. The District issued Resource Guides for Standards-based Assessment and Instruction for elementary, middle, and high schools. These documents, developed in the midst of the debate about the District's role and the implications of that role for guidance, reflect the District's concern that teachers link the SAT-9 with standards-driven instruction without feeling compelled to teach to the test. The guides were intended to help teachers understand the links among standards, curriculum, instruction and assessment in daily classroom practice and how classroom practice should link with the SAT-9.

The authors stressed that the Resource Guide "is not an SAT-9 Test Preparation booklet" and encouraged teachers to avoid "drill and kill" routines, bluntly stating, **"This approach does not work."** The guide explained the SAT-9 assessment system, and included examples of Philadelphia content standards in each subject area along with related SAT-9 objectives and sample standards-based assessments. For each subject area, the booklets included a sample lesson that could be part of a unit. Objections were raised to the Resource Guides along philosophical lines (they were not unit-based, focused too much on the SAT-9, and were grade- and discipline-oriented).

Although the Resource Guides did not specifically prescribe unit-based curricula, the District did undertake a limited effort to develop curriculum units of study during the 1996-97 school year. Using funding from AT&T, the District collaborated with the *Children Achieving* Challenge, the Philadelphia Federation of Teachers and the Philadelphia Education Fund to develop a template for standards-based units of study and a small number of units. A team of about 27 teachers across content areas participated in professional development on creating standards-based curriculum units, worked toward establishing a model for unit development in Philadelphia, and wrote and piloted a set of units. Although this effort was small in scale during the 1996-97 school year, the project planners saw the implementation of standards in Philadelphia as a multi-year process and hoped for continued funding to increase the effort in future years.

Another important tool initiated centrally was the new teacher observation form for principals, which came out toward the end of the school year.[15] The form reflects the District's view of standards-driven instruction and has the potential to be a powerful vehicle for communicating it to the school leadership and teachers. It reinforces many of the elements of a standards-based approach, including how students are grouped for instruction, constructivist teaching and learning, high expectations for all, incorporation of standards, intellectually challenging instruction, relevance to the world beyond the classroom, and the use of multiple assessment strategies. The observation form also makes note of the presence of small learning communities, the use of technology, and teachers' content knowledge.[16]

Although plans were initiated during the 1996-97 school year, it was not until the following year that the District issued a more in-depth guide to implementing the standards. Published and disseminated to schools in January 1998, the Curriculum Frameworks were detailed documents with grade-by-grade sequencing of the standards and more extensive performance benchmarks and examples than in previous documents. These frameworks also identify gaps between previous materials issued by the District (the standardized curriculum) and the current approach. Since this report covers the 1996-97 year, before the Curriculum Frameworks were issued, we do not discuss teacher's reactions to them here.

Summarizing central office guidance, there were three sets of documents issued during 1996-97. Early in the school year the central office issued the Content Standards and Cross Cutting Competencies for English/Language Arts, Mathematics, Science, and the Arts as well as a set of Curriculum Resource Guides. In February 1997 teachers received additional materials from the central office in the form of the Resource Guides for Standards-based Assessment and Instruction. Later, to provide "best practices," the central office developed lists of mathematics and science materials. However, central office staff were unsatisfied with the adequacy of these materials by themselves and continued to refine the approach to provision of curriculum support through the end of the school year. This effort culminated in the issuance of the Curriculum Frameworks in the middle of the following school year with a schedule laid out for a second edition for all teachers by September 1998. In addition to responses of the TLN to individual school requests, other forms of guidance the central office undertook included a pilot unit development project and the development of the new teacher observation form. The process for the development of performance and opportunity-to-learn standards was less definitive than that for the content standards. Here, the district views the SAT-9 test to reflect interim performance standards. The District views various initiatives designed to address resources and the role of the citizenry as contributing to the set of opportunity-to-learn standards.

[15] See discussion of the Teacher Observation Form in another of the reports in this series by Theresa Luhm et al., *The Accountability System: Defining Responsibility for Student Achievement.*

[16] Ibid.

Competing Views of the District Role

Finding: At the central office level, there were competing visions about how much guidance the district should provide about standards-based curricula and how to provide it. This debate slowed the process of issuing curriculum resources and examples of "best practices" to support implementation of standards-driven instruction.

The District's central office and key partners clearly recognized the need to provide teachers and schools with supplementary materials as guidance for implementing standards-based instruction, but production was slowed as a result of disagreements among key decision makers. Despite lengthy discussions in meetings, these issues were not resolved during the 1996-97 school year. The process of issuing resources and guidance to schools in selecting materials was further slowed because of the delay in filling the positions of Associate Superintendent for Leadership and Learning and Director of the Office of Best Practices. Evidence for this analysis comes from attending a series of meetings of work team leaders held at the District office.

The discussions revolved around three basic issues:

- how to design and implement a guidance plan that was congruent with and reflective of the philosophical assumptions underlying a standards approach;
- how specific or prescriptive the guidance should be; and
- what role each level of the system should play in the guidance system.

These debates flared when elements of the philosophy of standards-driven instruction seemed to be compromised by proposals to develop plans which aligned standards to pre-existing policy and structure. For example, discussions stalled when District staff presented plans to roll out curriculum resources grade by grade and clashed with those who reminded the group that such an approach ignored the cornerstone of standards theory that "time is a variable," and instruction needs to be flexible enough to accommodate different rates of learning. In a November meeting, a supporter of standards summed up the objection to a grade-structured guide with the statement, "The old curriculum objectives were narrower, less integrated and assumed a linear progression. The standards are more holistic, with benchmarks as representative of the standards at developmentally appropriate levels." He concluded by saying that what teachers need is a guide for sequencing the standards and some ideas for how to group them.

In another case, discussion about development of a guide to help teachers align the old standardized curriculum with the standards brought objections from a key policymaker who worried that this would send the wrong message. "What concerns me is that what we're describing is the same old thing. . . [this is] not thinking outside the box enough. The question that keeps coming into my head is, how do teachers get turned on; they get turned on in different ways so they need different things, maybe not 20, but maybe three or four."

Continued indecisiveness over the best form of curriculum support also occurred because of differing visions about the role of the central office. There was the concern about which level of the system should assume responsibility for developing resources in support of standards-based instruction. Once the standards were distributed and the PRI was adopted, teachers clamored for more support. As a result, there was contention among central office staff and other reform figures about whether centrally providing more specific information would rob schools of the opportunity to develop their own curriculum, and hence, contradict a central tenet of *Children Achieving* that decisions should be made at the school level as much as possible.[17] As discussed in our report on decentralization, some felt the central office should provide more guidance and detail because they lacked confidence in school-level leadership.[18]

Complicating the argument was the view advanced by some that the only way teachers could learn to implement standards-driven instruction was to involve themselves in developing curricula. In this view, fundamental changes in instruction would not occur if teachers merely were directed to already existing curricula. For example, in March 1997 the Superintendent's Executive Committee asked for a list of appropriate materials that could be issued to schools. Resistance to such a list was expressed in the work team leaders meetings by those who worried that providing lists limited the authority of schools and teachers to make their own decisions. Instead, they advocated professional development which would provide teachers with the knowledge to do their own resource analysis. Eventually, the District did issue lists of materials for mathematics and science, but not for English/language arts because they worried that such a list might impose specific pedagogical approaches on teachers.

The differences of opinion over philosophy, prescriptiveness, and how much direction the central office should give were also reflected in discussions about the work of the Office of Best Practices. In a series of meetings to discuss the approach of the Office of Best Practices, discussion revolved around whether the District should endorse specific programs and curricula and on what basis. Some felt the District should not push or market any programs in order to respect school-level decision making. Those who felt the District should provide information were split between those who wanted emphasis on evidence of effects and those who were more concerned with philosophical congruence with standards-driven instruction. Some were also concerned that placing heavy emphasis on results would rule out locally developed initiatives that lacked rigorous research evidence of their effectiveness. There was strong agreement that if the District endorsed any materials, it should be those with strong philosophical fit. Different viewpoints emerged, however, about whether to push programs or materials with evidence of effectiveness which were not philosophically aligned with a standards-driven approach.

Confounding the discussion and implementation of District guidance for standards-driven instruction were vacancies in two key positions in the District hierarchy. One was the Director of the Office of Best Practices, which remained vacant throughout the duration of the 1996-97 school year. The other was the Associate Superintendent for Leadership and Learning, which was filled in mid-February 1997 by Dr. Kay Lovelace. As a result of these vacancies, discussions about resource analysis and models did not produce action, and there was no leadership to reflect on the proposals and come up with a strategy.

[17] *Children Achieving Action Design.*

[18] Christman, *Decentralization.*

Other Instruction Improvement Activities Influencing Instruction

Finding: Schools and clusters were engaged in a variety of other instructional improvement activities, some predating *Children Achieving*, whose alignment with the standards varies and in some cases is unknown.

As described above, the central administration grappled seriously with its role to provide teachers and schools with guidance about standards implementation, although staff issued materials and supported a pilot development of curriculum units. To most teachers, however, central office deliberations were invisible and new materials often lacked follow-up explanation. Along with *Children Achieving*, there were a number of concurrent and preceding initiatives upon which, in the absence of elaboration from the central office, teachers and schools could draw as sources of guidance for changing instruction or school organization. Here we describe, from the point of view of teachers and schools, the sources of guidance about instruction and curriculum available in the spring of 1997.

If we look at guidance in terms of the programs, curricula, and initiatives in use in schools and classrooms, it was an eclectic mix, many schools using multiple programs and approaches. These ranged from District-wide and national curricular initiatives to clusterwide, locally developed programs to materials and activities used by individual schools. A number of the District-wide programs came to Philadelphia as a result of *Children Achieving*, either because planners thought they fit the approach or because *Children Achiev-ing* made funds available to purchase services. A Title I assessment effort was mandated federally, but managed centrally to make sure it was aligned with Philadelphia's standards effort. Although the District played a role in attracting or coordinating some of these efforts with *Children Achieving*, teachers and staff were not always aware of the connections.

The list of programs and influences on curricula operating in the Philadelphia schools last year is too long to itemize here, but we can categorize them in terms of their scope and their connection or fit with the standards approach (see Chart 3, next page). The programs varied in scope including those that covered the entire District, those that were clusterwide, those that were based in a cluster but adopted on a school-by-school basis, and those that were adopted by individual schools without regard to cluster membership. They also varied in focus, some aiming at whole-school change, some at instructional change, some at subject matter or skills development, and some at curriculum.

The many programs operating across the District during the 1996-97 school year presented an array of messages to teachers about instruction. Some of these efforts, like the Urban Systemic Initiative, Learning Research Development Corporation/New Standards, and Students at the Center, explicitly advocated the instructional philosophy of constructivism inherent in standards as an approach to instruction. But these initiatives varied drastically in scope. Only the Urban Systemic Initiative was District-wide. Other programs, such as Library Power or the emergent literacy initiatives, had elements that could support standards-based instruction if coordinated with a school or cluster focus on standards. While schools tried to adopt texts that promised to be standards-based, these varied widely in the degree to which they actually were designed to reflect the Philadelphia standards or a constructivist approach. Some simply promised coverage of national standards and offered a checklist. Others incorporated a standards approach through guidelines for grouping students, interdisciplinary units, and problem-solving activities. But some schools adopted curricula or texts that had no direct connection with the national standards or the standards movement.

CHART 3

Programs and Initiatives in Philadelphia Schools, 1996-97

Scope	Fit with Standards	Preceding or Concurrent with Children Achieving
Major District-wide initiatives		
• SAT-9 preparation	Some/Potential	Concurrent
• Title I Assessment	High	Concurrent
• Urban Systemic Initiative	High	Concurrent
• Teacher Networks (local and national)	Varied	Preceding
Cluster-based/school-by-school initiatives		
• New American Schools models (Atlas, Success for All)	Varied	Concurrent
• Students at the Center	High	Concurrent
• Coalition for Essential Schools	High	Concurrent
• Emergent Literacy approaches (100 Book Challenge, Reading Recovery)	Varied	Concurrent
• Learning Research Development Corporation/New Standards	High	Concurrent
School-by-school initiatives		
• Externally developed whole school programs (Talent Development Model, Library Power)	Varied	Varied
• Locally developed whole school programs (Wepic, PhilWP,Penn Literacy Network, Temple programs, One Giant Step)	Varied	Preceding
• Externally developed subject matter programs (Reading Recovery, Micro Society)	Varied	Varied
• Textbook or subject matter curriculum adoptions (Saxon Mathematics, Houghton Mifflin Reading)	Varied	Mostly Concurrent

A variety of programs and curricula coexisted within schools, often representing different philosophies and appearing at different levels of scope across Philadelphia schools. Within schools, as well, there were programs of different scope, from some involving only a few staff members to others that encompassed the entire school. Therefore, staff across the school system had varied access and exposure to the programs, which, without a clear overarching set of principles at the school or cluster level, could make the pattern of adoption uneven or seem haphazard.

In general, although there were a number of programs available as sources of guidance for instruction, they varied considerably in the degree to which they were congruent with standards as an approach to instruction, and none offered explicit or detailed guidance for carrying out standards-based instruction in the classroom. Since the Office of Best Practices was not in place, schools and teachers largely were on their own to make sense of how these programs fit with standards and their implications for practice.

On the next page we elaborate on Chart 3, describing the programs and sources of guidance available to teachers in the 1996-97 school year.

The SAT-9

Much of the professional development offered by the TLN during the winter focused on the SAT-9. Many schools purchased test preparations booklets called Key Links, created by the test publisher Harcourt Brace. In schools not using the Key Links booklets, many teachers sought to discern the nature of questions on the SAT-9 and prepare students for them. They learned that the SAT-9 was a different sort of test from those that Philadelphia students were used to because it included open-ended questions, required students to write short passages, and posed questions that asked students to solve problems. Test designers intended the SAT-9 to be compatible with a standards-driven approach. The fact that the Performance Responsibility Index would be based on spring SAT-9 scores meant the test loomed large for schools and teachers in the 1996-97 year. This would be the first opportunity for schools to see if improvement were taking place, since they could compare baseline scores from Spring 1996 with those of Spring 1997. As a result, schools felt great pressure to raise test scores. While the requirements of the test fits standards as an approach to instruction, the pressure to raise scores brought the possibility that teachers would use drill and practice exercises to prepare students for test-taking, an approach that does not fit standards. Furthermore, at the time of the SAT-9 administration in Spring 1997, the Philadelphia Federation of Teachers was raising questions about the alignment of the SAT-9 to the Philadelphia standards and managed to stimulate skepticism among many teachers about the appropriateness of the test. They also raised questions about using teacher attendance as part of the Performance Responsibility Index. While these issues have since been addressed, they nevertheless were part of the context in Spring 1997.

Title I Assessment

In response to a federal requirement that all schools eligible for Title I funding carry out performance assessments, staff in the District's Office of Standards, Equity and Student Services developed a process for professional development and identified resource materials for carrying out this mandate. This process was implemented through the clusters, led by the Equity coordinators (staff of the Office of Standards, Equity and Student Services assigned to cluster offices). Equity coordinators worked with program support teachers in each Title I school to choose performance tasks in reading and mathematics and to work with teachers to carry these out with their students. In some clusters, even non-Title I schools participated in this process. Teachers developed rubrics for scoring student performance on the tasks and the tasks were repeated at least once to provide information on students' development.

The District issued the Resource Guides for Assessment and Instruction as one way to link standards and assessment, though it emphasized the SAT-9 as the form of assessment to which teachers should attend. As for other forms of assessment recommended to teachers, little explicit direction existed other than the recommendation that portfolios would be the appropriate way in this new world of assessing student progress. The Title I assessment process offered the primary opportunity in many schools for teachers to get experience using performance assessment and rubrics to score and analyze student work, a process highly congruent with a standards-based approach to instruction, although not always linked to the Philadelphia standards initiative in teachers' minds.

The Urban Systemic Initiative

Philadelphia is part of a major national science and mathematics initiative intended to provide guidance for instruction and curriculum support to teachers in most schools in the District. The Urban Systemic Initiative (USI) has placed a strong emphasis on constructivist teaching and on the national standards in mathematics and science. Participants engage in professional development during the summer and school year workshops. In high school mathematics, teachers are learning to implement the Interactive Mathematics Program (IMP), which pulls together concepts and skills in a problem-centered approach. The IMP reflects the tenets of standards-driven instruction in its focus on real-world tasks, encouragement of active learning and strong intellectual engagement with mathematics concepts. USI is highly supportive of the Philadelphia standards effort and representatives from the Philadelphia USI participated in many of the curriculum resource discussions at the central office. They were integral to the development of both the content standards and the Curriculum Frameworks.

Cluster-based Initiatives

As described in our report on decentralization, some clusters assumed the role of broker, connecting schools to outside agencies, coalitions and networks that could support their work. In some cases, cluster leaders mandated a clusterwide approach while others offered schools choices from among a set of national reform models. Through these cluster efforts, a number of national reform programs are operating within schools.

New American Schools

The Superintendent encouraged Philadelphia schools to attend to the extensive body of research-based knowledge about effective instructional practice, though he avoided pushing specific approaches. Several clusters connected schools with one of the New American Schools (NAS) designs. In Strawberry Mansion, for example, schools elected to work with Atlas. The CHAIN Cluster recommended three different models from which schools could choose: Atlas, Modern Red School House, and Co-Nect. According to an early Office of Best Practices tally, there were five different NAS models in use in about 35 schools as of Fall 1996. These are whole-school change models and they are generally compatible with a standards-based approach. They may vary, however, in how well they align with Philadelphia's standards.

Students at the Center

Students at the Center (SAC) is a national initiative funded by the DeWitt Wallace *Reader's Digest* Fund. Sponsored by a consortium of agencies and universities, Students at the Center is focused on constructivist teaching and learning. Like the USI, it provides summer professional development and school year support for curriculum development. Unlike the USI, this work has been limited to two Philadelphia clusters, King and Gratz. With its constructivist focus, the work of SAC fits well with standards-driven instruction, but it is still too early to judge how its implementation is forwarding the implementation of the Philadelphia standards in the schools.

The Coalition of Essential Schools

A number of other national programs were being adopted by clusters that had less direct relationship to standards. One cluster endorsed the Coalition of Essential Schools clusterwide, building on the prior engagement of two of its schools with the Coalition of Essential Schools. Although the program has not been adopted by every school in the cluster, some of the features of the Coalition of Essential Schools model, such as deploying staff as "critical friends" to provide peer feedback on matters of instruction and climate, were used in schools across the cluster. This program, with its emphasis on school climate and belief in students' abilities and autonomy, is comparable with a standards-driven approach. It provides a general philosophy of instruction but it does not provide specific guidance for curriculum.

Emergent Literacy Initiatives

Several clusters have chosen to connect schools with programs that focus on reading in the early grades. One cluster provided clusterwide professional development based on the nationally known Reading Recovery program, while another adopted a locally developed program, the 100 Book Challenge. The decision to focus on a few grade levels and on reading was typically made by new clusters, which had fewer resources to work with in 1996-97. In this way they could focus limited resources and have a clusterwide impact. It appears that some of these efforts may have positive effects on student performance on the SAT-9 in elementary schools. It is difficult to assess to what extent these efforts support teachers' implementation of standards-driven instruction.

Learning Research Development Corporation

The CHAIN Cluster formed a partnership with the University of Pittsburgh's Learning Research Development Corporation (LRDC), which has been a leader in the standards movement. LRDC is training a cadre of teachers and TLN facilitators to help other teachers redesign instruction. In this cluster, one of the schools receives targeted technical assistance from LRDC, and all of the other schools benefit indirectly from the training that the TLN staff receives from LRDC.

Externally Developed Whole School Efforts

Several schools have developed partnerships with specific externally developed programs on their own. The Talent Development Model from Johns Hopkins University is working in a few Philadelphia schools. The Talent Development Model focuses on strengthening subject matter teaching and achievement. Library Power, a collaborative between the District and the Philadelphia Education Fund and supported by the Philadelphia Education Fund, began in the 1994-95 school year and eventually expanded to 30 schools throughout Philadelphia. This program is part of a 19-site national initiative intended to enhance instruction by promoting the role of libraries and librarians. It promotes collaboration between teachers and the librarian, builds and connects library resources with teachers' units, and generally raises the image of the library. Librarians are encouraged to partner with teachers, parents and community groups. With Library Power's emphasis on student research, teacher collaboration, and deep intellectual engagement, it is highly congruent with standards-driven instruction.

Locally Developed Whole School Efforts

The West Philadelphia Improvement Corps (Wepic) is a university partnership dedicated to the concept of community schools that is working with several schools in West Philadelphia. Both of these programs offer components that are compatible with standards. Wepic emphasizes problem-based and active learning and stresses connections to real community concerns such as nutrition and health. There are many other locally developed whole-school programs involving individual schools or networks of teachers that provide professional development, instructional models, and technical assistance. These include literacy-and mathematics-focused programs, partnerships with Temple University, the Penn Literacy Network, and the Philadelphia Writing Project. There are also various local partnerships with funders/businesses in the local community. These vary widely in their support of or congruence with a standards-based approach.

Externally Developed Subject Matter Programs

MicroSociety is a simulation program that involves students in carrying out activities as if they were adult society members, including running government, businesses, and a criminal justice system. This program, in use in a grade 4-5 small learning community in one school, is also congruent with standards in many ways. It encourages interdisciplinary curricula, active student engagement, connections to real-world problems, and teacher collaboration.

Textbook or Subject Matter Curriculum Adoption

The most common school-level response to standards implementation was the adoption of textbooks or curricula series for reading and mathematics that claimed to be aligned with the standards. These adoptions were too numerous to list here. Schools generally were looking for publishers who represented their materials as being aligned with a standards approach or as reflecting the national standards in language arts, mathematics and science. Alignment might mean that the texts were designed to help students acquire the skills discussed in the standards, or it might simply mean that the texts covered topics mentioned in standards documents.

As the central office and District partners debated how to help schools and teachers choose programs that would forward standards-driven instruction, the schools were already making these choices based on a variety of criteria and influences. Some were adapting existing programs and others were searching for appropriate ones. Clusters connected schools with national models and programs, some of which offered evidence of effectiveness based in research. From a school perspective, the variety of programs and initiatives offered focus and opportunity or was overwhelming and contradictory.

Discussion

As a systemic reform effort, *Children Achieving* seeks to align all policy systems and organizational structures so that they work together in concert to support higher levels of performance in schools and classrooms. In 1996-97 the central office made significant efforts to assure a common frame of understanding about standards-driven instruction and alignment of efforts within the District. Instructional leadership staff, including members of the Offices of Leadership and Learning and Educational Equity and Student Support as well as their representatives in the clusters (TLN staff and Equity staff), took part in professional development on standards-based instruction and had a variety of opportunities to engage in extended discussions of their guidance role and the meaning of standards implementation. Central office accomplishments during the 1996-97 school year include:

- development and dissemination of content standards in all subject areas which raised awareness of standards as a centerpiece of *Children Achieving*;
- reflection on the role of the central office in guiding and supporting implementation of standards-driven instruction in the schools; and
- development of a system to measure and communicate the results of performance accountability through the Professional Responsibility Index.[19]

Through its work during the school year, the central office, along with its partners, operationalized a complex program of standards and accountability through organizational and policy alignment and provided some support to schools through written documents and professional development by the TLN.

These accomplishments notwithstanding, competing views within the central administration and the sequence of the roll-out of elements of *Children Achieving* slowed efforts to deepen guidance for implementing standards in the classroom and made these efforts less effective than they might have been in communicating expectations. From the point of view of teachers and schools in 1996-97, little of the central-level policy alignment and support were apparent. They had myriad resources to draw on to help them make sense of standards, and, feeling the pressure of accountability, school-level staff tried to take advantage of them as much they could. Across the District, various units—teachers, small learning communities and schools—drew on different programs, though most did not provide concrete examples of standards-based instruction or intensive support for implementation. The sequence of the roll-out of standards also contributed to confusion about standards implementation. In early Fall 1996, teachers received the skeleton of standards, but most did not have access to rich images of standards-driven instruction or time to revise curricula. One source of images and curricular knowledge would have been the Office of Best Practices, but it did not come on line during the 1996-97 school year. In addition, teachers received little help with assessment in a standards-driven environment since performance standards (other than the SAT-9) were still unavailable. The immediacy of having to raise test scores propelled them to use test preparation booklets in a drill-and-practice approach since they had not yet fully mastered more authentic tasks that would have better prepared students for the test. Only the Title I assessment introduced performance assessment, yet, with some exceptions in particular schools or clusters, it was not explicitly tied to the effort to implement standards. In the next section, we will look more closely at how teachers made sense of the system of guidance for standards and instruction.

[19] For a complete discussion of the Professional Responsibility Index, see Theresa Luhm et al., *The Accountability System: Defining Responsibility for Student Achievement.*

IMPLEMENTATION *of* STANDARDS *in the* SCHOOLS

In the previous sections, we discussed the idea of standards and what standards-driven instruction is intended to look like in classrooms. We also discussed how the School District's central office attempted to communicate about the standards to the more than 13,000 teachers in 267 schools in Philadelphia, and the many other programs and sources of influence on instruction. Here we look at teaching practice in Spring 1997 and how it fits with a standards-driven approach to instruction. We address three questions about practice:

- How do teachers understand the standards and put them into practice?
- How does instructional practice reflect the underlying constructivist philosophy of the standards approach to instruction?
- To what extent is teaching presenting more challenging work to Philadelphia students?

We have four sources of data on classroom practice and standards. Taken together, these data allow us to make an assessment of the degree to which Philadelphia teachers were shifting to standards-driven instruction in the spring of 1997. These data sources include:

- survey items on how teachers view the Philadelphia standards and what they say about implementing them;
- observations of the pedagogy being used in classrooms;
- observations of the intellectual quality of classroom instruction; and
- interviews with classroom teachers about their practice.

We carried out 58 classroom observations in 20 schools and conducted 80 interviews in those schools and one additional school. We interviewed and/or observed 88 individuals in these schools. The sample included four high schools, five middle schools, three K-8 schools, and nine K-4 or -5 schools. Our findings are summarized and discussed throughout the following subsections.

As a frame to this discussion, it is important to keep in mind what are reasonable expectations for how far along teachers should be in implementing standards-based instruction given the nature and time frame of this reform effort. As we stated in the introduction to this report, we expect teachers to be aware of standards as the keystone to instructional change in Philadelphia. We would also expect that implementation of standards-based instruction would be uneven across classrooms and schools, but that teachers would be trying out new approaches and ideas. Indications that standards were beginning to affect practice would surface, not only in the techniques teachers use but also in the ways they conceptualize curricula and student learning. For most teachers in Philadelphia, 1996-97 was the first year they were introduced to standards as an approach to instruction.

Teachers' Use and Views of Standards

Since standards-driven instruction is so central to the *Children Achieving* reforms, we look first at the ways teachers were attempting to use the standards in their classrooms and how they understood them in the 1996-97 school year, using indicators from both the CPRE Teacher Survey and from classroom observations and teacher interviews. As the discussion below indicates, most teachers were aware of the standards and believed they understood their purpose. However, most did not believe they needed to change their practice in order to incorporate the standards and many did not believe their students could meet the standards. The data reveal that many were unclear about what it meant to implement the standards in their classrooms.

Finding: By the spring of 1997, almost all Philadelphia teachers were aware of standards and saw them as potentially beneficial to their students.

In contrast to the 1995-96 school year, when few teachers perceived standards as an important element of *Children Achieving*, most teachers in the 1996-97 school year were aware of the content standards and had examined them even if they had not read the Recommended Content Standards, Benchmarks, and Performance Examples. As shown in Table 1 below, a large majority of teachers (83.2%) who responded to the survey believed they understood the purpose of the content standards, and a similar percentage (80.8%) felt standards had the potential to benefit their students. Many fewer, yet still a majority, felt standards had already affected their schools positively and few saw negative effects. About one-third did not feel standards had yet had any effect on their schools.

TABLE 1

Teacher Opinions about the Content Standards and the Stanford-9 Achievement Test

Survey of Philadelphia Teachers, Spring 1997

Statement	Percentage of teachers who agreed or agreed strongly with each statement	
	Standards	SAT-9
I understand the purpose.	83.2	72.9
I believe it has the potential to benefit my students.	80.8	46.4
I believe that it already has had positive effects in my school.	57.4	31.6
I believe that it already has had negative effects in my school.	22.3	51.3
I believe that it has had no effect in my school.	35.7	31.3

What happened during the 1996-97 school year to raise teachers' awareness of standards and their belief in their purpose and potential? For one thing, all teachers received an early draft of the Recommended Content Standards, Benchmarks, and Performance Examples for English/Language Arts, Mathematics, and Science, and the Arts at the end of the 1995-96 school year and were asked to review them over the summer. Prior to that, only school staff members who had participated in the development of the standards had a concrete sense of their purpose. Second, the District offered training in the content standards to teams of teachers from each school during the summer of 1996 so at least a core of teachers from each school had had an opportunity to learn more about the standards. During the 1996-97 school year, most teachers reported participating in professional development on the content standards in their schools or clusters. Finally, the testing and accountability index as well as the District-wide Title I assessment effort raised school staff members' awareness of the role the standards were expected to play.

Finding: Most teachers saw the standards as a guide to subject/topic coverage. Few saw them as the basis for organizing and developing instructional units, classroom activities, and assessment strategies.

TABLE 2

Teacher Opinions About the Content Standards

Survey of Philadelphia Teachers, Spring 1997

Opinions	Percentage Response, by Subject		
	English/ Language Arts	Mathematics	Science
The standards are clear.	82.9	82.8	76.8
Most of my students will be able to meet the standards.	46.9	47.1	44.3
I will need to modify or revise more than half of my classroom instruction to align it with the standards.	35.8	37.9	39.9
My school has placed substantial emphasis on achieving these standards.	72.2	73.7	65.1
I have received adequate support in implementing these standards.	59.5	59.1	52.0

How deep was this awareness? How did teachers understand the standards and what implications did they believe standards held for what they did in their classrooms? How ready were teachers to implement the standards in their classrooms? From the survey responses shown in Table 2, teachers not only believed that they understood the purpose of the standards, but they also felt the standards were clear. Almost 83% believed the English language arts and mathematics standards were clear. Contributing to awareness of standards, nearly three-fourths of the respondents reported that their schools had emphasized standards.

While teachers said they understood standards, they did not necessarily believe the standards had implications for their practice. In contrast to the high percentage of teachers who said the standards were clear, only one-third believed they would have to change their classroom instruction in order to align it with standards. About 60% felt they had had adequate support in implementing the language arts and mathematics standards. In science, half said they had received adequate support. Further, fewer than half of the teachers believed their students would be able to meet the standards, with teachers holding the lowest expectations for students in science.

To judge how standards were actually being used, we developed a rubric for assessing instruction. At one extreme there was no evidence of standards use at all. At the opposite end of the continuum there were teachers who were using the standards for the redesign of lessons and assessments into coherent units based on related standards. Table 3 provides a depiction of the rubric and the distribution of the classroom observations conducted in the spring of 1997.

TABLE 3

How Teachers Used Standards

Classroom Observatory, Spring 1997

1	2	3	4	5
no use	use for topic coverage	use for focus	use for assessment	use for lesson/ assessment design
12/25.5%	24/51.1%	5/10.6%	3/6.4%	3/6.4%

From our observations, we found about half the teachers using the standards as a check-off list for topic coverage. They did not see standards as requiring redesign of their classroom practices or assessment strategies, but simply as a list of topics to be covered. The survey data are consistent with our observations, as only about one-third of teachers believed that they needed to revise their classroom instruction in order to align it with the standards.[20] Very few of the teachers we observed were redesigning their curriculum and assessment strategies to reflect the standards. We judge that 6 of the 58 teachers we observed actually were rethinking their teaching to some extent based on the standards.

A researcher's field notes provide this description of a teacher using the standards:

A middle school teacher told me about her involvement several years ago on a committee to explore "alternative teaching and learning strategies," as a result of a restructuring grant for the school. The effort resulted in developing block rosters and a cross-school theme. Now she is one of a small group of teachers working on writing a curriculum and exploring materials that would fit the new Philadelphia standards. She told me how the school staff discussed performance examples related to the English/language arts standards, looked at the 8th grade benchmarks and became familiar with open-ended questioning and what to expect from 8th grade students in terms of performance. In her classroom, she was working with students on writing and she identified the objective of the lesson I observed as teaching the students about revising essays. This built on previous activities in which the students had written a persuasive essay and shared them with their peers. This day they were to get feedback both from both their peers and from the teacher, and to use that feedback as part of the basis for revising them. The students had written about a book they read, The Giver *by Louise Lowry. The teacher had picked out three essays she thought were exemplary and read them to the class. After each, the teacher asked students what elements they thought made the writing good. They identified a number of features. She handed back the essays and carefully instructed students first to read and then reread their essays with the teacher's and peers' comments and then "reflect on what you read." Finally, they would be able to make revisions. Each student worked on his/her own as the teacher walked around the room working with various students individually. With one student, for example, she asked about the book, how it made him feel and what he would do in the situation of one of the characters.*

This lesson connects to a larger unit on literature, included several different standards, involved higher-level thinking, and was learner-centered and individualized. It also promoted learner-constructed meaning and afforded students diverse possibilities for answers both in their writing and in the discussion of what made good writing. On the other hand, we could not tell to what extent this lesson integrated standards across subject areas and how the essay, as a performance task, related to real-world audiences and purposes. This teacher noted how much time it takes to revise curriculum in light of the standards and was concerned about whether other teachers in the school would have sufficient time to "reflect and prepare," or, lacking time, would fall back on textbooks.

Most of the teachers we observed, however, were using the standards as a simple check-off for coverage. These were teachers using textbooks billed as covering the standards and teachers who casually checked the standards against what they were already doing in their classrooms to make sure they were "covering" them.

[20] Applying this rubric was difficult in those cases in which we did not conduct a teacher interview along with the observation. This made it impossible to determine the nature of standards use. Out of 58 classroom observations, we could not make a determination of the level of standards used for 11 cases.

A researcher's field notes provide this description of a class which the instructor believed was standards-based because she was "covering" certain material:

An elementary school teacher said, with reference to the standards, "I read over them very carefully to make certain that I was covering what I need to." She also noted that "probably not all of the kids in the class this year will get there." In the classroom, there was evidence of project-based learning with displays and models of a scene from American history and the room had a lot of trade books in several areas around the room (the teacher had said she herself had purchased these books). One bulletin board had mathematics journals in which students wrote about how they solved word problems. The lesson was a drill and practice activity in which all students worked on the same set of decimal multiplication problems in a timed exercise. The teacher called on "waves" of boys and girls to go to the board and do a particular problem while the rest of the class worked on the same problem at their desks. Some students struggled, while others grew restless and asked, "Can we go on now?" But all worked on the same problems at the same time. They went on to measurement. The teacher wrote a chart on the board which required the students to do computation to fill in the blanks. Despite some students having trouble with the exercise, she moved on to other problems.

The observer noted that the teacher moved along without pausing to see who was paying attention or understood and wondered about how this lesson related to other class work since there were mathematics journals evident. From this single observation, the class looks more traditional than standards-driven. Everyone was working on the same activity at the same pace despite their differences in understanding. The teacher was looking for one right answer and provided little opportunity for students to ask questions or discuss their work. From what we observed, the teacher had not changed her practice to base it on the standards, but was mainly concerned that the standards were represented in what she was already doing. However, as her practice includes some elements compatible with standards (mathematics journals, some evidence of student projects), this teacher appears to have begun to experiment with some of the techniques associated with standards-based instruction and has a foundation to build from when and if she addresses the implications of standards for her practice.

Finding: Their survey responses indicated that teachers were positive about the standards, believed they understood them and thought they were clear. However, teachers were struggling to understand what it meant to apply them in their classrooms.

Based on the survey results, we might have expected a higher level of standards use than we found in our observations. Taking the survey and interview data together, we see a more complicated picture of teachers' understanding. Although some of the teachers we interviewed talked about the application of standards as described earlier in this report, most said they did not really understand what standards meant for a classroom, or said that the standards were "nothing new" and were similar to the prior curriculum guidelines they had used for years. In the first case, teachers may believe they should change what they are doing in the classroom in order to conform to a standards-driven approach, but they are not sure what to do and want more support. In the latter case, teachers do not see a need to change what they are doing as long as they are "covering" the standards. Another factor contributing to teachers' reluctance to change their practice is that they believe their instruction is highly effective and that the main obstacle to student achievement is the characteristics of the students themselves.

Some teachers made a distinction between understanding the standards and implementing them. Many told us in interviews that while they agreed with the basic idea of having standards for students' work, they did not have the information they needed to understand the implications of standards for their teaching. Some saw the standards as overwhelming. Noting the complexity of the standards booklet, one teacher expressed this frustration: "Teachers may need more time to just look at standards books and digest what's there. I know that I initially thought, 'Oh, so much to do!' Reporting the comments of a teacher from another school site, one of the observers said that this teacher believed she needed alot more professional development before she could have a standards-driven classroom and admitted, "I'm not even really sure what that means." Some of the teachers, referring to terms like benchmarks and "performance examples," believed that the standards brought a new and unfamiliar technical language. Another teacher expressed this view saying that he "gets bogged down in the lingo...more explaining needs to be done about what standards actually mean in the classroom." Another teacher characterized the standards as like a "foreign substance...the language is different from that they {teachers} are accustomed to."

Others saw the standards as abstract or vague. "You can't disagree with any of the standards in theory because they make sense...but more needs to be done to translate those ideas into actual classroom strategies." This teacher noted that his principal's attempt to explain standards concluded with the observation, "Good teaching is good teaching is good teaching." Still another teacher noted, "Standards are a good idea, but it's hard to have a concrete idea of what they want." These teachers and many others we talked to were insecure about what it meant to implement standards in their classrooms and wanted more concrete illustrations, more guidance, even demonstration lessons so that they could gain a clearer sense of what they would have to do to put standards into practice. One teacher, reflecting the oft-expressed view of standards as a foreign language, said she felt people needed more training in a "step-by-step way... If you don't translate them, they won't be used."

Teachers also resented the lack of support and time provided for implementing the standards. The following statement summarizes what we heard in many interviews:

When it comes to implementing this stuff, how can we if we have to come up with it on our own? There are too many top-down commands and not enough attention to how the orders would be carried out. They come in and say this is what we want, do it. But they don't give you time to learn it or implement it. I wish there was more support from the administration.

Lacking the confidence to do it themselves, some teachers and schools had turned to publishers to help them implement the standards. We found several instances in which school staffs turned to textbooks portrayed as standards-based to carry out standards-driven instruction. For example, one teacher held up a Holt Algebra book which has the applicable NCTM standards printed at the bottom of each page, noting, "I know if I follow this book, I'll be meeting these standards. That's part of the reason we chose this textbook." In another school, a teacher noted that the staff were reviewing new publications that had already "set up those guidelines." The teachers who made these statements recognized that the textbooks were not the sum of what it meant to adopt a standards-driven approach and seemed aware that there was something else they should do to change their classroom practice, but they lacked specific understanding of what it was. The impulse to adopt textbooks that "covered the standards" shows these teachers believed that covering the standards was necessary to ensure that their students were adequately prepared.

Finding: The pressure of the Performance Responsibility system made the SAT-9 the center of teachers' attention. For most teachers, satisfying what they perceived to be the demands of the test took priority over, or were equated with, the standards.

Despite the fact that teachers were less positive about the SAT-9 as an instrument of improvement than they were about the standards, evidence from interviews shows teachers often saw the test as a powerful influence on their practice. The teachers who said they had changed their teaching practice cited the SAT-9 test itself and the Title I assessment process as major influences. Indeed, of the teachers we interviewed who believed their practice had changed in the previous year, about half cited the SAT-9 as one influence, and a small number cited the SAT-9 as the only influence.

The SAT-9 loomed large for teachers in the spring of 1997, and it was often to the test and not to the standards that teachers referred when telling us about the new expectations for what students should know. Much of the professional development provided during the year focused on the SAT-9, emphasizing its demands on students and how these differed from other state and national tests. Though teachers lacked a clear idea about the implications of the standards for their practice, they had some clear notions about how they might have to change if students were to meet the requirements of the test as teachers perceived them. Some teachers equated the standards with the SAT-9. When asked *how* they were changing their practice, teachers often identified three strategies they using to meet SAT-9 expectations:

- trying to foster more higher-order thinking or problem-solving approaches;
- giving students more writing; and
- using open-ended questions.

While each of these strategies fits standards-based instruction, their adoption in isolation from a conceptual understanding of standards as an approach to instruction would constitute only an incremental step. Besides, a focus on meeting test requirements for only the three or four weeks before the test would not be sufficient to help students reach the standards measured on the test. A veteran high school teacher noted that the school's emphasis was on developing standards-driven classrooms, but then went on to explain that they are doing this primarily by focusing on the SAT-9 and by getting teachers conversant with the performance index. "We're teaching them how to teach the SAT-9." The importance and centrality of the test as a guide to changing practice is exemplified in the following description, taken from a researcher's field notes, of a teacher's discussion of the impact of the performance index on her school:

It affected the entire school. It worries people because the SAT-9 is the "primary determinant." She indicated that this made the test too high stakes for the school. She was proud, however, that she was able to address this question. "I can talk about it because it's part of our professional development. We know it inside and out."

When they spoke about standards, principals often turned the conversation to the SAT-9, noting that teachers were "intimidated" by it.

Finding: Many teachers felt standards were nothing new, that they were already "doing" standards.

While many of the teachers we talked to subscribed to the view that standards required a new approach (even if they did not fully understand what that was), another group of teachers expressed no insecurities about standards because they believed that they were already using them. A response that echoed over and over again in our interviews was, "I have no problem with standards. Standards are nothing new," or put differently, "Some of the terms are new, but what they are doing is not."

In many instances, teachers believed that what they were already doing met the standards. For example, one teacher said that the school had begun to look at the standards and the benchmarks, and faculty had concluded, "We were covering much of what is in the standards." Another teacher said the "Philadelphia standards are not groundbreaking. They just bring out what has already existed. Before the emphasis was on the standardized curriculum and the pacing schedule." For this teacher, standards meant that she still had to "cover the skills but being at a certain point at a certain date [is] not as important anymore."

To some, the language of standards needed translation, but teachers who saw the standards as nothing new felt it was just new terminology for the old ways. A teacher said, "I've been doing it for years. They just didn't call it standards-driven in the past." Another said, "It's no different than what we've been doing for the last twenty years. The terminology may be different."

These teachers did not question their assumptions and used their existing conceptions of curriculum to make sense of the initiative. These conceptions were based on a previous Philadelphia curriculum reform, the Standardized Curriculum, intended to reduce variations in the content covered in the classrooms and schools in the system. To ensure a common curriculum across schools, the District issued guidelines in the mid-1980s about what should be taught in each grade and at each point during the school year. In a sense, the standardized curriculum offered a kind of uniform standard, but it represented a very different view of teaching and learning. The standardized curriculum was designed to ensure the coverage of subject matter rather than the mastery of critical knowledge and skills. Yet many teachers did not see the distinction. A researcher's notes from an interview with a middle school teacher illustrate this problem:

When I asked her if she was familiar with the standards, she pulled out her own copy of them and said that she's looked them over and in her opinion, they aren't any different than what people have done in the past. She said she still uses the standardized curriculum which is really the same as the standards, the terms are just different...When I asked her if she is prepared to create a standards-driven classroom, she said that she already has. She showed me one of the science standards and told me that she compared it to her curriculum and then checked off everything that she is already doing—which was everything.

Several teachers told us that they used the standards for "focus" or as a "guide." Like the teacher quoted above, they noted which standards they covered in what they were already doing in the classroom. For example, one teacher characterized the standards as a "framework; they provide focus." She went on to explain, "Any reading program can be adapted to fit...our lesson plans now include standards." In many cases these teachers had not yet figured out whether they were actually covering the standards, but believed that was all standards-based teaching required of them.

Finding: Some teachers did not perceive it necessary to change their practice because they believed they were highly effective and that students' abilities accounted for low achievement scores. They also believed that they already had changed their practice for the better while student indicators were worsening.

On the Philadelphia Teachers' Survey, teachers were asked to rate the condition or quality of certain aspects of their school environment, and to indicate whether those aspects had improved or worsened during the past two years. Table 4, below, presents the results.

TABLE 4

Perceptions of School Conditions and Changes Over Past Two Years[21]

Survey of Philadelphia Teachers, Spring 1997

Conditions of the School Environment	Percent rating the current condition as good or excellent	Percent rating of the changes in the condition over past two years	
		Worsened	Improved
My teaching effectiveness	93.7	48.2	5.2
Quality of instruction	90.4	39.2	5.9
How teachers get along with students	84.9	18.6	10.3
Quality of curriculum	79.6	35.4	9.0
Setting high standards for student learning	73.2	36.7	11.7
Coordination and focus of the school's instructional program	71.8	33.7	13.0
Student attendance	67.2	25.6	17.8
Quality of professional development	64.2	34.5	13.7
Physical condition of the school building	57.0	33.3	21.5
How students get along with other students	53.9	12.8	31.4
Quality of student academic performance	45.7	22.3	22.9
Student behavior	38.9	14.7	48.4

The three conditions most often rated as good or excellent relate to teaching: teaching effectiveness, the quality of instruction, and the way teachers get along with students. Teachers said these conditions have been improving over the past two years. Ironically, though, they also seemed to believe that as they were getting better, their students were getting worse. The three conditions with the lowest ratings relate to the behavior of students and their academic performance. Teachers said these conditions have deteriorated over the past two years.

Staffs of elementary and K-8 schools made similar estimations across most of these categories except for interpersonal relations—among students, and between students and teachers. Middle school teachers were less satisfied than elementary and K-8 teachers with student attendance, student behavior and student academic performance. High school teachers were even less satisfied than those in the middle schools. So while teachers at all levels thought more highly of their own teaching than of their students' behavior, performance, and attendance, this disparity was more pronounced among middle and high school teachers.

[21] The most notable difference across the levels referred to student attendance and setting high standards for student learning. Student attendance was rated as good to excellent by 80.8% of elementary school teachers but by only 38.2% of high school teachers; 81.3% of elementary teachers said the school was setting high standards for learning, but only 60.3% of high school teachers felt that similarly high standards were being set at the high school level.

The survey responses of high school teachers also showed that they felt things had not improved as much in the previous two years as their colleagues in elementary and middle schools. In areas related to student behavior, performance, and attendance, there were significant differences between high school teachers' view and the views of those at the other levels. The one area in which high school teachers were more likely to see improvement than teachers at the other levels was in how well students were getting along with one another.

How is it that teachers can think that they are getting better while students are getting worse? According to the teacher survey, teachers believe students' learning is largely influenced by factors beyond their control, including preparation for academic work, and social and emotional factors. Table 5 shows that teachers believe they are making a difference in their students' lives, but also believe student learning is blocked by poor study habits, bad attitudes, and weak knowledge and skills. Perhaps some teachers lack motivation to seek better ways of teaching or to reflect on their teaching because they do not see it as influencing their students' performance.

TABLE 5

Teachers' Perceptions of Their Own Influence on Student Learning

Survey of Philadelphia Teachers , Spring 1997

Statement	Percent who agreed
I am certain I am making a difference in the lives of my students.	90.9
The attitudes and habits my students bring to class greatly reduce their chances for academic success.	78.6
My success or failure in teaching students is due primarily to factors beyond my control rather than to my own efforts or ability.	70.3
The students in this class don't have the study and work habits needed to achieve academic standards.	68.8
Students in this class don't have the prerequisite knowledge and skills they need for academic success.	58.5
How much a student learns in this class depends more on the student's natural ability than on my teaching strategies.	32.8
Many of the students I teach are not capable of learning the material I am supposed to teach them.	31.0
I sometimes feel it is a waste of time to try to do my best as a teacher.	20.2

According to teachers, student learning was obstructed by their social and personal problems, lack of motivation to get help, and unwillingness to do the required work. High school teachers were actually less likely to see social and personal problems as obstacles than elementary school and middle school teachers. Middle school and high school teachers were more likely than elementary to see lack of motivation to get help as an obstacle to learning, while high school teachers were much more likely to see chronic absenteeism as a significant obstacle. Looking at teachers' beliefs in their students' ability to meet the standards, we found that while overall teachers believed most of their students could not meet the standards, elementary school teachers were more likely to believe their students could meet the standards than either middle school or high school teachers. Middle school teachers were the least confident about their students' abilities to meet the English and science standards. All in all, teachers had little confidence in their students' abilities and saw the reasons for poor performance as largely beyond their control.

Overall, teachers were aware of the standards, understood their purpose, and were positive about their potential for students. However, most teachers did not believe that they had to change what they were doing in classrooms to meet the standards. Our observations showed that most teachers were using standards to determine topic coverage. Our interviews and observations revealed that teachers differed in their views of the standards. These different interpretations suggest several explanations for the generally low level of implementation of standards during the 1996-97 school year:

- Teachers did not have a clear idea of what it meant to implement standards in the classroom.
- Teachers equated standards with the SAT-9 and the adaptations they perceived necessary were in response to the requirements of the test.
- Teachers believed what they were already doing met the standards and conformed with standards-driven instruction.
- Teachers believed that they were already highly effective and believed that they had little influence on students learning because of factors outside of their control. As a result, these teachers separated their efforts from the student performance and, therefore, probably did not believe that changing their instructional practice would make a difference.

Standards as an Instructional Approach

In the previous section, we looked at how teachers viewed the Philadelphia standards and what role the standards played in their curricular and instructional decisions. In this section, we address the question of how classroom instruction reflected constructivism, the pedagogical philosophy most closely associated with standards-driven instruction through a description of the instructional techniques teachers were using and in what combinations.

Constructivism, as discussed earlier, implies a set of techniques that creates classroom opportunities for students to test their own understandings of phenomena and to construct explanations that take in new knowledge. While a variety of teaching techniques may be used in constructivist instruction, we would look for innovative techniques to predominate. What kinds of instructional activities would characterize a standards-driven classroom? Drawing on the narrative accompanying the Philadelphia Content Standards and on Mitchell and Willis' work, we can point to the following characteristics: ample opportunities for investigations and classroom discussion; cooperative small group activities; opportunities for students to review and reflect on their own and each other's work; opportunities for students to write analytically and focus on content areas; and student engagement in active learning such as using manipulatives and hands-on activities. Activities we would expect to find less often would include: teacher lectures; drill-and-practice on basic facts, definitions, skills, or procedures; reading together as a class; and individual worksheet assignments. (See Chart 4 below.)

Our data on teaching practice suggests that the predominant mode of instruction in Philadelphia's classrooms might be characterized as transitional; that is, falling somewhere between traditional practice and a more constructivist approach to instruction. Teachers appear to be relying on traditional teaching approaches such as teacher-directed, question-and-answer or drill-and-practice activities, and adding on activities associated with constructivism such as small-group activities, open-ended discussions, and responsive writing or journal writing.

CHART 4
Categories of Teaching Practice

Traditional (passive learner)	**Transitional**	**Constructivist** (active learner)
• Listening to or observing teacher presentations • Completing worksheets individually • Engaging in drill and practice on basic facts	• Mix of techniques from both ends of the continuum	• Engaging in class discussions • Writing; using journals • Participating in cooperative small group activities • Reviewing and reflecting on own work and the work of others • Doing hands-on, investigative activities; taking field trips • Using computers for analysis and research

The Philadelphia Teachers Survey also shows that teachers are mixing instructional activities. Asked to estimate how much class time they spent on various kinds of instructional activities, teachers reported frequent use of activities associated with constructivist or standards-driven classrooms (class discussions, working in small groups, and reviewing and discussing the work of other students) as well as frequent use of activities associated with traditional instruction (listening to teacher presentations, working individually on exercises and worksheets, and engaging in drill-and-practice). Table 6 below shows how teachers in different subject areas characterized their instructional activities in a "target" class.

TABLE 6

Frequency of Instructional Activities, by Subject Area*

Survey of Philadelphia Teachers, Spring 1997

Classroom Activity	Percent of classes doing this activity more than once a week, by subject area			Total
	English/ Language Arts	Mathematics	Science	
Participating in class discussions	84.9	78.2	75.0	80.3
Reading in class	90.9	76.6	64.7	79.7
Listening to or observing teacher presentations	72.0	74.8	58.4	69.7
Working in small groups	71.0	66.8	57.3	66.4
Writing in the content area	75.8	54.5	51.7	62.8
Working individually on exercises, worksheets, etc.	60.7	70.7	49.2	61.4
Engaging in drill and practice on basic facts, definitions, skills and procedures	63.1	65.6	42.4	59.2
Reviewing and discussing work of other students	49.4	53.0	38.5	48.1
Participating in lab investigations or other hands-on activity	41.9	47.5	39.1	43.2
Using computers	32.9	30.5	25.1	30.3

* Less frequent activities included working on group projects or individual long-term projects, giving oral reports, doing homework in class, and going on field trips.

Teachers frequently used class discussions and small groups, techniques associated with constructivist teaching, but they also used worksheets and drill-and-practice. Across the board, teachers were most likely to say they used class discussions and reading in class. They were much less likely to engage students in activities such as reviewing and discussing each other's work or participating in lab investigations and hands-on activities. The responses for science were quite mixed. While teachers were less likely to report use of worksheets or drill-and-practice in science than in reading, English/language arts or mathematics, they reported less use of lab investigations and hands-on activities than we might have expected.

There were also some interesting differences in teaching techniques across school levels. Table 7 below displays the percentage of teachers reporting target class students participating in particular classroom activities a few times a week or everyday.

TABLE 7

Percent of Teachers Who Used this Activity a Few Times a Week or Everyday, by School Level

Activity	K-5	K-8	Middle School	High School	Total
Participating in class discussions	83.0	85.0	77.0	68.0	80.0
Reading in class	87.0	86.0	78.0	52.0	80.0
Listening to teacher presentations	71.0	75.0	63.0	66.0	69.0
Working in small groups	72.0	73.0	64.0	43.0	67.0
Writing in the content area	68.0	68.0	62.0	43.0	63.0
Working individually	65.0	67.0	54.0	52.0	62.0
Drilling and practicing facts, definitions, etc.	65.0	65.0	52.0	43.0	59.0
Reviewing and discussing other students' work	54.0	53.0	42.0	34.0	48.0
Engaging in lab investigations	52.0	48.0	35.0	21.0	44.0
Using computers	37.0	26.0	32.0	13.0	31.0
Working on group projects	22.0	23.0	20.0	12.0	20.0
Working on individual long-term project	17.0	17.0	13.0	9.5	15.0
Giving oral reports	18.0	14.0	9.7	5.4	14.0
Doing homework in class	9.5	9.3	13.0	16.0	11.0
Taking field trips	2.3	1.1	3.2	1.7	2.2

Overall, elementary teachers appear to use more techniques associated with constructivism than middle and high school teachers. They use more class discussion, small group activities, writing, review and discussion of student work, lab and hands-on activities, projects, oral reports, and field trips. On the other hand, elementary teachers also use some activities associated with traditional teaching more often than teachers at the other two levels: worksheets, requiring students to listen to teacher presentations, reading in class, and drill-and-practice. Middle schools resemble high schools in most areas, but are more like elementary schools in their use of class discussions, small groups, writing, reviewing and discussing student work, labs, computer use, and projects. Middle school teachers reported the most use of field trips.

Although reporting a mix of techniques, high school teachers were the most traditional. The only traditional teaching technique used more frequently by teachers in elementary and middle schools than those in high schools was drill-and-practice. High school teachers were much less likely to use techniques associated with constructivism, such as small groups, writing, review and discussion of student work, lab investigations, computers, projects, oral reports, or field trips. Students were more likely to use class time to do their homework. Some of these differences were quite marked and surprising. According to the survey data high school students were much less likely than students at other levels to write or conduct lab investigations. Across the board, however, very few teachers engaged students in either group or individual project oriented activities, giving oral reports, and especially field trips.

TABLE 8

Instructional Activities in Observations

Classroom Observatory, Spring 1997

	Traditional		Transitional	Constructivist	
(n=58)	1	2	3	4	5
Number of teachers	11	15	18	7	7
Percent of teachers	19%	26%	31%	12%	12%

The survey findings make sense in light of our observations of classroom practice. Out of 58 classroom observations, we rated only seven or 12% as constructivist. On the other hand, we rated 11 teachers as fully traditional, almost one-fifth of the total. Most teachers fell somewhere in between. The largest group, 31%, fell right in the middle. Grouping those who fall into categories 2, 3 and 4, 69% might be characterized as transitional. These are teachers who use some techniques associated with constructivism, but who do so infrequently or tentatively. For example, we observed a teacher who divided her class into small groups but asked students to work individually in those groups. We use the term transitional because we saw teachers making efforts to incorporate some techniques associated with constructivism, although it is not clear that they were self-consciously trying to move towards such an approach to instruction. Rather, we suppose they added these on to their repertoire of strategies for a variety of reasons, including a perception that they were trying to address the new expectations of standards as an approach to instruction.

One third grade classroom exemplifies those in which traditional instructional activities predominated.

Our field notes provide this description of a typical traditional classroom:

The teacher had students working on SAT-9 preparation using the Key Links workbooks. The first workbook exercise was about finding patterns missing from a tile floor. There were four potential answers, each with a different tile pattern. The teacher stood in the front of the classroom and recreated the tile grid on the blackboard, showing the class the correct pattern while having the students as a group name the colors of each tile until they recognized the correct pattern. Even though several of the students indicated that they recognized the pattern before she had completed her telling, she told them, "Don't tell me the answer yet." She emphasized the key words in the question, telling the students to make special note of the words "most likely" to help them get the right answer. She ended the exercise by asking, "Do you all understand? Yes or no?" She went through several other Key Links exercises in a similar way, stressing important words to note and acknowledging only one of the possible answers, requiring all students to go through the same set of steps at the same pace, even when they came up with answers more quickly.

In this classroom, the teacher demonstrated a problem while students watched and listened. While some students were doing the exercise themselves, she did not ask students to work through the problems or to look for alternative solutions.

In transitional classrooms, teachers were attempting to use techniques that engaged students in discussing, working in small groups, interpreting and exploring alternative ways of addressing problems, or seeing reference to the "real" world in their work. However, these same teachers often added these techniques to a base of more traditional methods and approaches. For example, students might be involved in discussion, but the teacher directed the questions and limited the possibilities for response. These were teachers who seemed to see some value in a more constructivist approach, and were working toward mastering it or at least incorporating aspects of it into their practice. Based on research conducted in other settings, this is the kind of practice we would expect to see in the early years of instructional reform.[22]

Our notes provide the following description of a transitional classroom:

A male 7th grade teacher in his second year of teaching was responsible for language arts and social studies in his SLC. Desks in his classroom were clustered in five groups, with four or five students in each. Written on the board, the objective of the lesson read, "Creative writing, test-taking strategies." The lesson began with a warm-up writing activity for a story the class would read later, "The Lady and the Tiger." The story has a critical decision in it, and the writing activity was intended to prepare the students to think about such decisions by contemplating how they would make one. The teacher had written a prompt on the board: "There is a bulging brown paper bag on your doorstep. You take it up to your room to open up the bag. (Make up for yourself what's in it.) No one else is at home." He instructed the students to write a couple of paragraphs in their journals responding to the scenario. He encouraged the students to start by thinking of a good topic sentence. To help them come up with topic sentences, he asked for volunteers to share ideas for topic sentences

[22] Cohen, "A Revolution in One Classroom."

with the whole group. To help them compose their journal entries, the instructor reminded students about word webs—a strategy they had used previously. The students worked individually but shared and discussed each other's writing as they worked. The teacher walked around the room looking at various students' writing and offering suggestions; for example, after reading one young woman's entry, he noted that she didn't have a topic sentence. After about 20 minutes, he passed out textbooks which contained the story. Also on the board, the instructor had written activities for the students to complete. They were to answer the reading check in the book and write a story ending explaining why a character makes the choice he does. The teacher told his students that they would read their journal entries later, and he introduced the story as connecting both to the journal entry they wrote and to a previous story they had read in class. For the rest of the class period, students took turns reading the story aloud. Students eagerly volunteered to read and kept their attention on the readers. The teacher frequently asked the reader to pause in order to clarify specific terms and ideas in the story. Finally, the students got to the point in the story where a decision needed to be made—the protagonist had to choose between two doors behind which was either a tiger or a lady. The teacher asked, "Who made the decision about punishment?" After a brief, but lively, discussion among students in the class, one student concluded, "You, yourself."

In this classroom, students worked in small groups, wrote, and engaged in discussions and interpretations of the story they were reading. The teacher encouraged students to draw on their previous knowledge in their journal writing and in discussing the story. His assignments were open-ended, leaving room for individual student responses rather than channeling them into a "right" answer. Although he asked students to share their responses to the writing prompt with each other, few did so. Nonetheless, this teacher was developing a style that used techniques associated with constructivism.

In another example, students were working in small groups, but on individual activities or on superficial activities unconnected with long-term involvement in a topic. A fourth grade class illustrates this situation:

Desks were grouped in fours in a horseshoe configuration so that all students were facing the blackboard and screen at the front of the room. The teacher had written the goal for the lesson: "Today we will learn how to read and write decimal fractions with tenths and hundredths." The teacher told students that her husband was an avid bike rider who had ridden 40 3/10 miles on his bike the previous weekend. "How would you write this as a fraction?" She told the students they could write their answers in their notebooks and suggested they confer with their team members. But the observer noted that the students worked alone except for cases in which foundering students asked for the answer from team members who had solved the problem. Next the teacher asked students to write their answer in decimal form. The teacher wrote several examples of student work on the board and asked the students to "vote" on which answer was correct. After the class selected 40.3 as the answer, she asked them, "What does the decimal point mean?" She asked them to write their answers in their notebooks. As they began to write, the teacher made an oversized decimal point on the board and wrote the word "and" above it. Several times during the lesson, the teacher made sure that students weren't talking, or that their "hands were busy" so they could "listen and learn." Later in the lesson she had groups working with manipulatives, but limited them to one combination of blocks to answer the problem she posed.

In this classroom, the teacher used small groups, but she was not able to structure them as cooperative learning opportunities. There was little interaction among students about the process of solving the problem. The teacher used small groups in the context of a teacher-directed classroom.

In other classrooms, we observed teachers trying to move toward a constructivist approach although some were not yet fully comfortable with it. Some did not have the content fully mastered. In other cases, it was their first time trying a new strategy, such as integrated mathematics. For example, in a 10th grade mathematics class, a teacher who is part of the USI training was using constructivist strategies.

The students sat in groups of three or four at four lab tables. This class followed an earlier one in which students had developed hypotheses about how to predict the length of a shadow. Now they were testing their hypotheses using various materials to simulate the conditions and factors that might influence the formation of a shadow. The teacher had prepared a handout summarizing the "variables" and assigning symbol letters to each.

QUESTION: How long is a shadow? ANSWER: It depends.

QUESTION: It depends on what? ANSWERS: 1) The height of the light source (h); 2) The height of the object (t); 3) The distance the object is from the light source (d); 4) The angle the light source makes with the object (a).

The teacher showed the students what they would have to do in groups to test their hypotheses, holding up two meter sticks, a set of interlocking cubes that could form different heights, and a flashlight. Putting the two meter sticks at right angles, with one perpendicular to the table surface, he placed a column of cubes on the table at a certain distance from the junction of the two sticks and the flashlight at a point on the upright stick. Then he shined the flashlight and showed the students how to measure the shadow. Each group was to vary a different factor over three trials—the height of column, the distance from the junction, or the height of the light source—and look for patterns in their findings. Each group created a chart recording its findings which the teacher intended to combine on a blackboard chart. He gave each group materials—paper on which to make their own charts, meter sticks, flashlights, and cubes—and instructed them to carry out their tests. The teacher walked around to each group, clarifying what they were supposed to do, and urging them on. The groups worked at different paces, but eventually each completed the hypothesis testing. There was not enough time to come back together and put each group's findings on the board chart so the teacher asked each group to turn in the group chart, saying he would discuss the results the next day.

The observer asked him what he was going to do the next day, and he said he hadn't gotten that far in the teachers' guide yet. But he grabbed a graphing calculator and started putting in the students' data to see if he could find a relationship. He began to see the relationships among variables (a straight line could be drawn across the points formed on the x-y axis when the data from one of the charts was fed in). He said he was beginning to think about how he would handle the discussion of the students' findings the next time they met.

In this lesson, the teacher used the small groups for students to actually do a hands-on investigation in a collaborative way. As the students worked, they were forced to take different roles, holding up the flashlight, measuring the distances, recording the findings, and talking about what they were doing. The shortness of the period limited their ability to capitalize on the discovery process. If this teacher had been a little more organized, he might have made better use of the short time period and if he had known where he was going could have stimulated some predictions. Nevertheless, the instructional strategies he was using were those associated with constructivism.

The Intellectual Challenge of Instruction

Finding: For the most part, teaching was not greatly intellectually challenging.

The use of innovative techniques is not the only way to judge the quality of the lesson. It is also important that lessons be academically challenging. The frame of authenticity or intellectual challenge looks at the nature of engagement with subject matter and judges classroom opportunities for deep engagement. It was not unusual to find classrooms of students working in groups but doing trivial work, or, conversely, sitting in straight rows but working creatively. Several teachers were observed demonstrating how to use manipulatives in such a rote, lock-step fashion that their approach confounded the process of hands-on learning. As a result, we also used the framework of authentic instruction as a way to look at the intellectual challenge of classroom practice.

This way of analyzing instruction examines the degree to which instruction actually improves the "intellectual quality" of student work. It was developed by Fred Newmann and his colleagues and is labeled "authentic pedagogy."[23] As Newmann and his colleagues point out, "innovative practice does not necessarily reflect improvements in the intellectual quality of students' experiences."[24] The dimension of instruction emphasized by Newmann overlaps with those identified by Mitchell and Willis as characteristic of good standards-based instruction—construction of knowledge, higher-level thinking within and across disciplines, dealing with real world problems, and instruction that stresses depth over breadth. These authors offer a set of "standards" and rubrics for judging the intellectual challenge of instruction apart from teaching techniques which include:

- promoting higher-order thinking;
- providing deep knowledge of a topic;
- encouraging substantive conversation; and
- making connections to the world beyond the classroom.

Instruction that promotes higher-order thinking reflects constructivist pedagogy, as students must "manipulate information and ideas in ways that transform their meaning and implications."[25] Here, we would expect to find students using facts and concepts in ways that go beyond filling in worksheets, such as generalizing or hypothesizing. According to Newmann and his colleagues, "an element of uncertainty" or unpredictability is introduced when students are engaged in this kind of thinking. This is contrasted with "lower-order thinking," where students are "receiving or reciting factual information" or applying rules in repetitive routines. A rating of five would require the classroom observer to find "almost all students, almost all of the time, engaged in higher-order thinking."

The second standard is deep knowledge, where good practice means "central ideas of a topic or discipline [are addressed] with enough thoroughness to explore connections and relationships." Other features of deep knowledge are the level of detail that students explore within a topic, students' coherent and "holistic" understanding of concepts, and students demonstration that they have learned concepts deeply by solving problems using that knowledge or constructing explanations. Instruction would be rated at the top level if students in a classroom "sustain a focus on a topic, demonstrate complex understanding by arriving at a reasoned, supported conclusion, or explain how they solved a complex problem."[26]

[23] Newman, Fred M., Walter G. Secada, and Gary G. Wehlage, *A Guide to Authentic Instruction and Assessment: Vision, Standard and Scoring*. University of Wisconsin-Madison: Wisconsin Center for Education Research, 1995. 51

[24] Ibid., 2.

[25] Ibid., 86.

[26] Ibid., 88-89.

A third standard for authentic instruction is the presence of substantive conversation, either among students or between students and teacher. Such conversation should contribute to the development of a shared understanding of the ideas being discussed, should not be scripted or controlled by the teacher, and should include higher-order thinking. For substantive conversation to be effective, it must be sustained. Finally, the fourth standard for authentic instruction is that it makes connections to the world beyond the classroom. This can mean a focus on public issues, personal experiences of students, or an audience beyond the classroom. In authentic instruction, the highest rating would be given in cases where students themselves work on such topics and see their work as connected either to their own lives or to the public arena. In applying these dimensions of authenticity to the instruction we observed, we found a wide range of performance. For each classroom, we used a scale of 1 to 5 to judge instruction on each dimension. Taking the four "standards" for authentic instruction together, we gave teachers a composite score. (See Table 9 below.) The highest classroom score was 18 out of 20 and the lowest was 4. In the latter case, the instruction rated only a 1 on each scale. The average was 9.3. Dividing the range into thirds, we can see the distribution of scores more clearly.

TABLE 9

Distribution of Composite Scores on Authenticity Standards

Classroom Observation, Spring 1997

Score	Number/% of Teachers
4-8	28/48.3
9-13	22/37.9
14-18	8/13.7

Based on these ratings, the largest number of teachers are at the lower end of the standards of authenticity. In classrooms of teachers who score 4-8, students are engaged in repetitive activities such as filling worksheets, are dealing only on the surface of topics, are not engaged in discussion or linking their activities to the real world. The large number of teachers in this category is surprising in light of what teachers said they were doing to meet the requirements of the SAT-9. As mentioned earlier, teachers understood the SAT-9 to require higher-order thinking, problem solving, and the use of open-ended questions, all activities that would be consistent with the standards for authentic instruction. Given what teachers said they were doing, they should have received higher ratings on these scales. However, their ambitions were not yet reflected in their practice.

Echoing the pattern of the data on constructivism, many teachers—about 38%—lie in the middle of the scale of authenticity. Their practice too may reflect development towards strong intellectual challenge and connections to the real world, a strength on which professional development opportunities can build.

Below are two examples of teachers who scored high on the authentic pedagogy standards:

In a 10th grade classroom the desks were arranged in rows facing the board and teacher's desk. There was a lot of student work displayed around the room, including newspaper front page layouts, illustrations, and writing for a particular kind of story. The main task on the day we observed was to edit annotated bibliographies the students had created. This was part of a longer project of the small learning community to make sure students know how to write a research report. In the 10th grade, students choose a topic and develop a bibliography by spending time in the library using reference tools. They select ten articles, read them, and create the annotated bibliography as one step in the report development process. On the day we visited, the teacher asked the students to work in groups, and to trade and edit each other's papers. She asked them to look for various grammatical mistakes using their "editing" pencils (red pencils). Students became engaged in their peer critique, making comments to each other such as, "You need to break this up into four or five baby sentences," or a playful, "I need your source. Is this plagiarism?"

A second grade teacher read to her class from a book of Frog and Toad stories, then worked with one group on an activity to relate the story to students' own lives by discussing and writing about best friends. This teacher noted how she had changed what she did with her students in response to stories from drilling them on the plot to encouraging them to think and write.

Another middle school lesson is a good example of one that uses innovative techniques, but falls short in terms of intellectual challenge:

At the outset of the lesson this sixth grade teacher explained to the observer that she was trying to help students learn how to use prepositional phrases. She noted that their writing lacked detail. The desks in the classroom were clustered into five groups of four. The teacher told the students to choose group names for a contest and to identify one group member to write and present the answer. The game consisted of adding prepositional phrases to short sentences. She referred students to their notebooks for a list of prepositional phrases. "Put as many phrases as possible in the sentence until the time is up. The group with the most prepositional phrases wins the round." The teacher went over two examples with the class before starting the game. On the board, she wrote, "the girl sings," and asked students to offer some suggestions. They volunteered a number of phrases to add to the sentence—"in the white dress," "everyday," "in school," "in church," "in the afternoon." Eventually the sentence read, "The girl in the white dress sings everyday in school, in church, in the afternoon." The teacher accepted the sentence as meeting her expectations for what they would do once the competition started.

Each group then got its own paper to work on: the teacher offered another sentence and began timing. On the board, she wrote, "The man tells a joke." The groups began trying to come up with phrases. As they worked, each group had different problems. In one, only two members of five actually worked on the activity. Another wrangled over who should be the recorder. The observer did not notice students using their notebooks to reference prepositional phrase lists at all during the activity.

Finally, the time was up and the representative from each group read their sentence. Repeating the strategy used on the practice sentence, students added many phrases to the predicate. The winning group had four prepositional phrases, "The man tells a joke in the afternoon, at school, ..."

The class went through three rounds, during which some groups got better at working together while others did not. Several times, the teacher rejected a phrase because it contradicted other phrases or because it wasn't really a prepositional phrase. At other times, she accepted inappropriate suggestions. The group that won was all female and had worked well together from the beginning. At the end, the teacher let students know she was frustrated that none of them had added prepositional phrases to the subject of the sentence, only phrases trailing off the end.

This teacher used small groups and encouraged student discussion and peer collaboration with the potential for students to "construct" their knowledge of sentence structure and how to add details to their writing. The teacher accepted a variety of answers, but she did not provide criteria for judging he quality of the answers students offered. Students did not discuss the nature of the sentences and phrases they were creating, and there was not enough time for reflection or relation of this activity to any prior or future activities. The structure of the game encouraged students to write as many phrases as they could, worrying more about quantity than the quality of their suggestions. As a result, this seemed to be a lesson in how to write run-on sentences.

While we saw some classes that pushed students to discuss topics in depth and to relate them to real-world issues, more often we observed classes that covered material superficially and isolated from students' concerns.

Discussion

In the 1996-97 school year, teachers' awareness of the Philadelphia standards and their significance as a component of the *Children Achieving* reform strategy was widespread. Despite the high awareness, however, we found great variation in how teachers understood standards-based instruction in Philadelphia schools. Many teachers did not believe they had to change what they were doing in their classrooms to address standards. Many wanted more clarification of the implications of standards for their practice. Many were struggling, with varying degrees of success, to master new teaching strategies, frequently in response to what they saw as the expectations of *Children Achieving*. Some of the experimentation derives from efforts that predated *Children Achieving*, such as the Philadelphia Writing Project. But *Children Achieving* itself introduced strong incentives and some support for teachers and schools at least to consider changing their practice to address standards as an approach to instruction. For one thing, teachers and principals looked for materials and textbooks consistent with standards. Teachers also recognized that the SAT-9 would require them to give their students more opportunities to write, respond to open-ended questions, and engage in problem solving. Teachers told us they checked the standards to make sure they were "covering" them. Despite intentions, teachers did not always implement the practices they talked about. The majority of teachers were adding new techniques to their repertoires or at least considering it, but their understanding of constructivism or standards-based instruction was at the beginning stages. We expect that it will take more time for teachers' practice to undergo more fundamental change. Though the efforts of the central office staff and TLN were extensive the 1996-97 year, a great deal of effort remains to orient teachers to what standards-driven instruction actually means and what such instruction would look like in practice. Further, classrooms were not likely to offer students work that is highly intellectually challenging as defined by Newmann and his colleagues, which underscores the importance of attention to teachers' content area knowledge as well.

SCHOOL INFLUENCES *on* STANDARDS IMPLEMENTATION

In our report on decentralization, we examined how schools support standards. In that discussion, we found three school factors contributing to teachers' engagement with standards-driven instruction:

- administrative and teacher leadership;
- the maturity of small learning community implementation; and
- the school's work towards increasing the rigor of the academic program.[27]

We cannot generalize from our observations about patterns in schools that influence implementation of standards-based instruction, but they do allow us to offer some hypotheses about which efforts at the school level influenced teacher practice along the lines of a standards-based approach. These efforts include how schools:

- encourage and support teacher collaboration across disciplinary lines;
- make time for teachers to participate collectively in curriculum development and planning;
- create possibilities for flexible scheduling;
- invite the participation of teachers and small learning communities in curriculum decisions; and
- bring about coherence of professional development activities so that teachers gain a clear understanding of the school's instructional priorities and approache .

On the next page we discuss several of these features in light of our observations and teacher responses on the survey.

[27] Christman, *Decentralization*.

School Leadership

Finding: School and cluster leadership that understood and supported the move to standards-based instruction by emphasizing curriculum revision in light of the standards and by providing time and assistance for curriculum and materials development influenced teacher understanding and classroom practice.

When the principal understood the standards and stressed revision of the curriculum and assessment in light of them, teachers were consistent in describing how their practice changed, "by tying assessment to goals," or "thinking more about assessment." In one cluster we found that the cluster emphasis on and support for curriculum development combined with a school-level focus on curriculum revision in light of the standards was influential in shaping teachers' understanding of standards-driven instruction. There the cluster leader emphasized curricular development and cross-cluster coordination. As a step towards developing a shared curriculum, this cluster called together 3rd and 5th grade teachers to develop curricula around common literature and the development of curriculum resource guides with activities, examples of student work, and rubrics for assessing student work. This effort was funded by a grant from the Philadelphia Education Fund for professional development. Teachers in each of the schools in this cluster were more likely to understand standards as requiring revision of curriculum and changes in practice, such as tying their instruction to assessment or teaching about real-world problems. In one school in particular, however, standards implementation was stronger because the principal strongly reinforced the cluster emphasis. Building on previous restructuring work at the school, she provided time for teachers to meet during the summer to review the standards and design curriculum in light of a set of standards they identified as salient. In our interviews and observations at this school, we noted that several of these teachers had positive attitudes towards the standards, a clear understanding of what it meant to implement standards-driven instruction, and a realistic sense of the amount of effort full implementation would take.

In schools where the principal stressed test-taking skills and raising test scores above all else, there was less emphasis on curriculum revision or examining classroom practice overall. For the most part, although principals told us that test-taking skills were not something that could be taught in a short period of time, they encouraged teachers to add them on to or substitute them for regular classroom activities particularly in the weeks before the SAT-9 was given in the spring. In schools where the principal stressed preparation for the SAT-9, teachers consistently echoed this goal and were more likely to equate standards with the SAT-9.

In addition to the principal's leadership, small learning community coordinators could be instrumental in deepening teachers' understanding of the standards-based approach. Where the small learning community coordinators had release time, they often took on the role of orienting teachers to the standards and helping them find materials that would fit a standards-based approach. The TLN facilitators could be helpful in these schools by supporting small learning community coordinators in their efforts, coaching them in one-on-one meetings designed to address specific questions and needs of the small learning community. Teachers in these settings cited small learning communities as having had a significant influence on their practice.

Teachers who recognized the need to develop curricula often were overwhelmed by the job of having to find materials. Finding materials requires that time and assistance be given to teachers to gather, develop and review materials during the school year.

Finding: School-based programs that were congruent with a standards-driven approach, such as Library Power, could be influential in shaping teachers' practice to fit the standards.

School-based initiatives in some schools seemed to contribute to teachers taking a standards-driven approach, though not where programs were narrow or uncoordinated with other efforts. One program that stood out as a significant influence on teachers in the schools where it was in place was Library Power. This program, funded through a grant to the Philadelphia Education Fund by the DeWitt Wallace *Reader's Digest* Fund, began in a cohort of schools in the 1994-95 school year and "promotes collaborative planning between teachers and the librarian."[28] It strengthens library resources and encourages student research through collaboration between the classroom teacher and librarian. In several instances teachers told us that Library Power had been a significant influence on their practice and when we observed classes in schools with Library Power we saw students engaged in in-depth research projects that often were interdisciplinary in nature. For example, referring to the English/language arts standard for reading non-fiction, one teacher at this school said, "Library Power has helped us with the non-fiction piece." Describing student research as part of Library Power, another teacher at the same school described her students' work as a "performance-based example":

...last year the students were studying about the Pilgrims with Library Power, each group produced and starred in their own play. They had a time frame of when the Pilgrims left England until they came to America. It had to be based on facts. They researched and wrote about why they left and how they felt about what happened to them in America.

Almost every school had at least one special program in place, but schools varied in the degree to which programs were coordinated with each other and the degree to which the program was schoolwide. Another program that encouraged strong student engagement was an economy simulation in place in one elementary school. This program encouraged teacher collaboration and integrated learning about real-world problems, though it was only in one 4th-5th grade small learning community in the school.

Several schools were considering or already had adopted one of the New American Schools models. Most were in the early stages of implementation in the 1996-97 school year, so it is too early to judge how these programs influenced the schools. We found that in several schools, there were just too many competing programs and the school had no clear focus. In these schools some programs were less congruent than others with standards, and the net result was often to make standards seem like just one program among many.

[28] Useem, Elizabeth and Cati Coe, *Library Power in Philadelphia: Final Report from Seven Case Studies*. Philadelphia Education Fund, September.

Opportunities for Teacher Involvement in Curricular Decision Making and for Reflective Dialogue and Feedback on Teaching

Finding: While a majority of teachers at all levels said they were likely to talk about instruction with other teachers, they were very unlikely to have opportunities to open up their practice to feedback either from colleagues or from the principal.

As we discussed earlier, a chief concern among teachers who were positive about the new standards approach was not having enough time to really consider and think about what using standards would mean for their practice. This concern is certainly reinforced by the survey responses to questions about the nature of teacher interaction. While about two-thirds of elementary and K-8 teachers said that they talked about student work and instruction with other teachers, fewer middle school teachers and only about half the high school teachers said they did. Even more striking was how infrequently talk about instruction was based on empirical evidence. Very few said they typically invited colleagues to observe their teaching, only about 15% at the elementary and middle school levels and 11% at the high school level. Few teachers invited colleagues to help teach their classes. Even fewer received regular feedback from their principals, though this was more likely to happen at the elementary and K-8 schools. Only about 10% of teachers in middle schools and 5% in high school said they received regular feedback on their teaching from their principals. This suggests that the new, standards-based observation form probably had no effect on teachers' views of practice in the 1996-97 school year.

Another item on the survey asked teachers to characterize their professional development opportunities. By their account, such opportunities existed to varying degrees across school levels. Half the teachers at the elementary school level and about 45% at the K-8 and middle school levels agreed that the school provided opportunities for teachers to reflect on their practice. Fewer high school teachers reported that they have such opportunities, with one-third in agreement that their school offered opportunities for reflection. Without opportunities and encouragement for teachers to discuss instruction in depth and thereby clarify their sense of what standards-driven instruction really looks like in action, their knowledge remains largely abstract. In our sample of schools, early evidence suggests that where efforts were made to open up discussion and reflection on practice in light of the standards, teachers were beginning to examine curricular and instructional strategies. The Title I assessment process served this purpose in some settings. Some of the adopted programs led schools to structure opportunities for reflection. Atlas was one New American Schools model that teachers told us had influenced their practice by giving them more opportunities to reflect on their practice and talk about teaching and learning philosophy with their colleagues. In another school, where the principal structured common planning time and freed up the small learning community coordinators to coach teachers within their small learning communities, teachers saw the coordinators as extremely helpful to them in coming to understand and experiment with standards-driven instruction.

Opportunities for Flexible Scheduling and Teacher Collaboration across Discipline Lines

Finding: We saw little flexible scheduling and interdisciplinary teaching, but where they occurred there were functioning small learning communities (where teachers met to plan, themes actually were in place, etc.), or principals encouraged teacher collaboration across subject area.

Where small learning communities are in place and based on themes, particularly in elementary schools, we noted opportunities for teachers to integrate curriculum addressing, for example, skills in language arts incorporated into science or social studies topics. Small learning communities, or at least team arrangements, also made it possible for teachers to extend discussion and work a project into more than one period of the day. Of course, elementary schools offer the potential for more flexibility than middle schools and high schools, and, indeed, we saw very little flexibility at the upper levels. Where small learning communities were in place but did not have themes or common planning, they had little influence on teacher practice. In the high schools, the divisions by subject matter meant there were almost no cross-disciplinary or collaborative efforts even where small learning communities claimed to be thematic.

CONCLUSIONS

If you have high-stakes assessment without support, the assessment will drive the curriculum. You don't want the assessment to be the curriculum. In the absence of guidance, there is that danger, and we already see it in some places. —District Policymaker, April 1997

The statement above illustrates the necessary components in a theory of instructional change leading to actual instructional change. *Children Achieving*'s theory of instructional change holds that if the District specifies high academic standards for students as a focus for the efforts of teachers and administrators and couples this with a high-stakes accountability system as the incentive, teachers will do what is necessary to help students achieve the standards. The question that the theory of action leaves up for grabs is: What degree and kinds of support are needed for instructional change and improvement and for how long?

As we said at the beginning of this report, the 1996-97 school year still represented an early stage in the implementation of standards-based instruction. The standards were approved and distributed to teachers at the beginning of the school year and all but six of the clusters with their Teaching and Learning Network staff had just come on board. (Most of the new clusters did not even hire TLN facilitators until January 1997.) The clusters undertook a range of efforts to provide assistance to schools in understanding and implementing standards-driven instruction, and there was a great deal of variation across clusters in the professional development and assistance to schools that was provided.[29] The TLN offered workshops to various audiences on standards-based instruction as well as individual consultation. The TLN also focused professional development on SAT-9 orientation in the spring of 1997. The Equity coordinators in each cluster also provided support through the Title I assessment process. We have noted that while these workshops were certainly a starting place for orienting teachers to the nature of standards-based instruction, the number, depth, and breadth were not enough to expect a more even and full level implementation during the 1996-97 year.

Written materials in support of standards-based instruction available to teachers in the spring of 1997 included the Content Standards for English/Language Arts, Mathematics, Science and the Arts issued in September 1996. Two other documents were developed and distributed, although these were not as widely known by teachers we interviewed. These were the Curriculum Resource Guides that were structured like the standards booklet but offered additional performance examples and content ideas, and the Resource Guide for Standards-based Assessment and Instruction which linked standards to the SAT-9 and offered a few examples of lessons incorporating standards.

The Office of Best Practices was without leadership during the 1996-97 school year, and did not contribute to the guidance and support of practice. A new evaluation form for teachers offered another potential source of guidance, but because principals rarely observe teachers or give them feedback, it could not have had much influence on instruction in the 1996-97 school year.

[29] Christman, *Decentralization*.

In the District's central office, there was a great deal of debate about what kind of support was appropriate and necessary. The debate reflected unresolved tensions within the theory of action and within the standards movement itself. These debates centered around three questions:

- the role of the central office in a decentralized system;
- the philosophy of standards and how materials should reflect it; and
- the extent to which guidance should build on or use existing materials and approaches, such as the standardized curriculum.

At the same time, the District moved forward with its new accountability system, and administered the SAT-9 test in the spring of 1997. This sent a clear message that schools would be judged on the basis of whether student scores went up and most schools and teachers were highly motivated to make sure that they did. Thus, standards as accountability drove much of the instructional activity.

While the central office and School District partners debated their roles and approaches to supporting standards-driven instruction, there were a number of other initiatives and programs which influenced instruction in Philadelphia schools and classrooms during the school year. Some of these were District-sponsored initiatives, such as the Urban Systemic Initiative and the Title I assessment, while others were associated with particular clusters or schools, some home-grown and some national models (purchased with funds made available through *Children Achieving*, particularly in the first six, more well-funded clusters). These varied in the degree to which they were congruent with standards-driven instruction and none provided detailed guidance for implementing a standards-driven classroom.

Standards Implementation

The District succeeded in raising the awareness of standards as a central tenet of *Children Achieving* in the 1996-97 school year. Teachers believed they understood the purpose of the standards and believed they had great potential for benefiting students. There was, however, wide variation in how teachers understood standards. Teachers lacked a concrete sense of what implementing standards in their classrooms really would mean. Some recognized that they had to change their practice, but they didn't have a clear idea of how. Many of these teachers looked to the structure of the SAT-9 for guidance for changing their instructional strategies. Since the test approach—using open-ended questions, requiring writing, and emphasizing problem solving—is compatible with a standards-driven approach to instruction, the test was generally supportive of standards implementation. However, it offers, at best, a partial picture of what a standards-driven classroom should look like, and the pressures to raise scores may have encouraged many teachers to stick with more familiar drill-and-practice methods. These methods may have a short-term effect, but in the long run will not move students towards the kinds of standards Philadelphia has set. Many did not believe that they had to change their practice because they believed they were already "covering" the standards, or they equated standards with the standardized curriculum, which they had been using for years.

Teachers were largely satisfied with their instructional practice and thought it was improving. In the 1996-97 school year, our observations revealed that many teachers talked about their practice as innovative and addressing requirements of a standards-driven approach, but did not fully put their ideas into practice. Nevertheless, many teachers were experimenting with innovative instructional strategies, mixing them with more traditional ones. Looking at instruction from a constructivist frame of reference, we found that although teachers were using instructional strategies associated with this approach, they did not always understand the underlying philosophy. Looking at practice in terms of the intellectual challenge teachers brought to their students, our data revealed that the typical classroom was not challenging. Teachers were trying to meet the requirements of the SAT-9. However, in most instances they were not actually carrying out the kind of instruction that they hoped to.

Influences on Standards Implementation

Considering the importance of the standards to the School District's theory of instructional change, what made a difference to teachers in trying to make sense of standards and what more needs to be done to communicate about standards-based instruction? Our analysis points to some significant influences on teachers' understanding of the standards and on their implementing a standards approach to instruction.

- Teachers' needs were not fully satisfied by the nature and amount of support they received from the District to implement standards, so they drew on what was available: their past experience and materials, previous work with and knowledge of standards (in mathematics or science), programs and initiatives in their environment, and messages about the kind of instruction that would prepare their students for the SAT-9.

- Pressure to raise test scores made the SAT-9 test a significant influence on instruction in the 1996-97 school year. Teachers' views of the demands of the test, such as students being able to answer open-ended questions, are among the elements of standards-based instruction, and adapting instruction to the test can support standards implementation. Teachers varied in how they actually addressed the test, however, including rote teaching of test-taking skills or teaching the strategies perceived to be the performance expectations of the test in isolation from content. In the spring of 1997, test preparation was not well embedded into a standards-based approach to instruction and sometimes diverted attention from thinking about the standards to thinking about the test.

- Clusters and schools, using what was available to them through the District or elsewhere, were often influential in instruction through the adoption of programs or through the adoption of specific curricular materials. Where these programs and materials were congruent with a standards-driven approach, they gave teachers substance and images they could use for changing their instruction. However, many of the programs were just being introduced in the 1996-97 school year, and their effects were limited in intensity and scope. Where programs had been in place for at least a couple of years, we could see that those which were congruent with the standards approach had facilitated greater understanding among teachers and greater change in practice.

- Principals who understood the theory underlying standards understood the importance of giving teachers support and time to develop and revise materials in light of the Philadelphia Standards. In settings where principals gave teachers time before school opened or provided planning time in cross-disciplinary or cross-grade groups, teachers were more sophisticated in their use of standards as an approach to instruction. The presence of small learning community coordinators also seemed helpful to standards implementation since they could provide assistance by gathering materials and serving as a source of guidance for standards within the school. They also encouraged teachers' reflection and discussion and opened up classrooms for observation and critique.

RECOMMENDATIONS

- **The School District should refine its guidance role in light of the magnitude of the change necessary for full implementation of standards-driven instruction in Philadelphia classrooms.**

Teachers are the "agents of change" in this reform, and they have the insight and motivation to persist in making the significant transition to standards-based instruction. Current strengths among the teaching staff in Philadelphia can be built upon and nurtured. While a number of teachers in the system are carrying out excellent instruction and are using a standards-driven approach, the vast majority in the 1996-97 school year were just beginning to understand the implications of the standards for their classroom practice. Development was uneven and varied. For implementation to proceed, it will take both time and support in many forms. Even in those clusters with greater resources—funds for programs and additional Teaching and Learning Network staff—implementation was uneven. Clusters with fewer resources tried to focus their meager resources, necessarily having to delay efforts with some grade levels or subject areas. More varied, customized, and intensive forms of professional development should be considered.

- **The District should consider targeting Teaching and Learning Network resources on standards as core change strategy.**

In light of the centrality of standards to the theory of instructional change, the District should consider focusing the resources of the Teaching and Learning Network on helping schools and teachers implement the standards. What they are communicating must be clear and consistent.

- **Teachers need more support for developing curricula and more help in screening and obtaining materials that fit with the standards approach.**

The District recently (January 1998) issued a set of materials, The Curriculum Frameworks, which are quite extensive and address some of the issues here. However, teachers will need time and assistance to review these materials and to understand their implications for curriculum design and instruction. They will need further time to actually select, adapt, or develop curricular materials that are aligned with the frameworks. The District should build upon the work undertaken as part of the AT&T grant to develop or obtain model replacement units by level and discipline which would give teachers practice using exemplary standards-based curricula.

- **Teachers need a variety of opportunities to interact with exemplary standards-based teachers who can provide concrete models, offer direct feedback, and stimulate reflection on practice.**

Many schools and clusters recognized the inadequacy of turn-around training but did not make use of alternative ways to bring knowledge and expertise to teachers. Teachers wanted concrete examples and opportunities to see other classrooms or to have others come in to their classrooms. At this point, most teachers still work in isolation and rarely have the opportunity to obtain feedback about their instruction from colleagues and experts. The TLN is spread very thin in most clusters, and so alternative strategies for increasing consultation and teacher interaction about curriculum, teaching, and subject matter should be developed. Some clusters began to develop cluster-based teacher networks. These and existing networks might be tapped in a deliberate way as one source of support for the TLN. The Philadelphia Education Fund could also be an important resource for professional development and information on standards-based instruction.

- **Teachers need opportunities that allow them to examine student work and standards-based units.**

Because assessing student performance is such a central component of a standards-based approach to instruction, teachers need to see and practice using a variety of forms of assessment and applying rubrics to judge the adequacy of performance. Examples of fully developed standards-based units can provide models for developing curriculum and creating performance tasks that include the Philadelphia standards.

- **Principals need professional development and leadership training to reinforce their understanding of standards-driven instruction and to assist them in carrying out their roles as instructional leaders.**

Principals are critical in bringing coherence to a quite complex and often inconsistent set of programs in schools, to providing the kinds of opportunities that encourage professional growth and change, and to providing feedback and support for the difficult effort teachers are undertaking in trying to under stand what standards-driven instruction means. They need professional development and support of their own in carrying off this challenging role.

- **Teachers need some professional development and examples of standards-based units that is disciplinary in focus.**

The District should provide opportunities for teacher learning which have disciplinary focus. Focus on academic discipline increases teachers' own intellectual development and thereby increases their ability to offer students more intellectually challenging work. Opportunities for teachers to engage in discussion of important topics and debates within disciplines can be professionally rejuvenating, provide opportunities to discuss curriculum development and materials, and produce useful and challenging materials they will be able to use in classrooms.

ABOUT *the* CHILDREN ACHIEVING CHALLENGE

Many innovative school reform plans have foundered for lack of resources. In February 1995, shortly after the School Board adopted Children Achieving, The Annenberg Foundation designated Philadelphia as one of a small number of American cities to receive a five-year, $50 million Annenberg Challenge grant to improve public education.

Among the conditions for receiving the grant was a requirement to produce two matching dollars (i.e., $100 million over five years) for each one received from the Annenberg Foundation, and to create an independent management structure to provide program, fiscal and evaluation oversight of the grant. To assist in meeting both these conditions, the District turned to Greater Philadelphia First, an association of chief executives from the region's largest companies, to help raise the matching dollars and to provide the oversight required by The Annenberg Foundation. A staff was hired, and the Children Achieving Challenge came into being.

For the Challenge staff, the initial question was how to harness the, at times, fragmented efforts of various organizations that work with the School District to improve schools. Such organizations usually focus on specific projects but often have been unable to do much to improve the school system as a whole. For this reason, Challenge staff have served as catalysts, conveners and coordinators in a massive collaboration between internal and external partners. As a result, the Challenge has helped bring the School District together with all of its potential partners in a collective focus and a new way of working that can sustain itself long after the Challenge is gone.

Greater Philadelphia First houses the Challenge and provides oversight to it through the GPF Partnership for Reform. In addition to its focus on education, GPF provides leadership on issues important to the economic development and quality of life of the community.

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A WORD *of* THANKS

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